

---

# Black Sand Removal Action

## Crawford Street Site Portland, Oregon

*Prepared for*  
Crawford Street Corporation

February 26, 2002



BRIDGEWATER GROUP, INC.

USEPA SF



1294804

---

# Black Sand Removal Action

## Crawford Street Site Portland, Oregon

*Prepared for*  
Crawford Street Corporation

February 26, 2002



BRIDGEWATER GROUP, INC.

# CONTENTS

---

## Text

<b>INTRODUCTION AND PROJECT BACKGROUND .....</b>	<b>1</b>
1.1 Site and Project Description .....	1
1.2 Summary of Removal Action .....	2
<b>PRE MOBILIZATION ACTIVITIES.....</b>	<b>3</b>
2.1 Work Plan Preparation .....	3
2.2 Permitting .....	3
<b>REMOVAL ACTIVITIES .....</b>	<b>5</b>
3.1 Contactor Mobilization and Site Preparation .....	5
3.2 Beach Removal.....	5
3.3 Bank Removal and Restoration .....	6
3.4 Soil Management .....	7
<b>SAMPLING AND ANALYSIS OF BEACH REMOVAL AREA .....</b>	<b>9</b>
4.1 Sample Locations and Procedures .....	9
4.2 Sample Analyses Results .....	9

## Tables

Table 3-1	TCLP Lead and Chromium Concentrations in Stockpile Soil Samples
Table 4-1	Petroleum Hydrocarbon Concentrations in Removal Area Soil Samples
Table 4-2	PAH Concentrations in Removal Area Soil Samples
Table 4-3	PCB Concentrations in Removal Area Soil Samples
Table 4-4	Total Metals Concentrations in Removal Area Soil Samples
Table 4-5	TCLP Lead Concentrations in Removal Area Soil Samples

## Figures

Figure 1-1	Site Location Map
Figure 1-2	Site Plan
Figure 3-1	Black Sand Removal Areas
Figure 3-2	Beach Removal Area Depths
Figure 4-1	Beach Removal Area Sample Locations
Figure 4-2	PAH, Copper, and Nickel Concentrations in Post-Removal Soil Samples

## Appendices

Appendix A	Photographs
Appendix B	Landfill Weigh Slips
Appendix C	Analytical Laboratory Reports



## SECTION 1

# INTRODUCTION AND PROJECT BACKGROUND

---

This Black Sand Removal Action report presents the results of the recently completed black sand removal action at the Crawford Street site in Portland, Oregon (Figure 1-1). The removal action was performed in accordance with an October 5, 2001, *Black Sand Removal Action Work Plan* and under the oversight of the Oregon Department of Environmental Quality (DEQ).

## 1.1 Site and Project Description

### 1.1.1 Site Description

The Crawford Street site is located between North Burlington and North Richmond Streets in north Portland and is bordered by North Crawford Street and the Willamette River (Figure 1-2). The portion of the overall site where the black sand removal work occurred (i.e. the "Site") is in the southwest corner of the Crawford Street site, near the Willamette River. The Site includes an area on the beach of the Willamette River and along the top edge of the bank, above the beach. The Site is currently vacant except for a chain-link fence located along the top of the bank.

The beach portion of the Site is unvegetated sand with scattered woody debris (i.e. logs, sticks) and concrete debris. Scattered trees and shrubs are present along the slope and top of the bank. The beach lies below the normal high water level and is often submerged.

Ordinary high water (about elevation 16 ft NGVD) corresponds to the middle portion of the bank. The top of the bank is at about elevation 30 feet (NGVD). The bank lies at an approximate 4H:3V slope at the Site. The Willamette River was at historically low levels during the removal action. During high tide, the river level was at about elevation 6 ft (NGVD) and at low tide the river was at about 3 ft (NGVD).

### 1.1.2 Site History and Project Description

In October 1999, DEQ requested that Crawford Street Corporation (CSC) perform a Preliminary Assessment at the Crawford Street site. DEQ further requested that the PA include soil and groundwater sampling and analysis. The PA was completed and soil and groundwater samples were collected and analyzed in early 2001.

The results of the PA sampling and analysis indicated elevated concentrations of hazardous substances in black sand found on the Site.

In particular, black sand was found along a limited portion of the Willamette River beach and along the top of bank above the beach. DEQ determined that possible releases of hazardous substances from the black sand in these areas could potentially migrate to the Willamette River and pose a threat to ecological receptors in the river.

On August 28, 2001, DEQ issued a letter to CSC requesting that CSC remove the black sand from the beach and from along the top of the adjacent bank to prevent potential future migration of hazardous substances from the black sand to the river.

## 1.2 Summary of Removal Action

Approximately 381 tons of black sand was removed from the beach and bank at the Crawford Street site during the removal action performed in October 2001. About 65 in-place cubic yards of black sand was removed from the beach. Approximately 190 in-place cubic yards of black sand was removed from along about 140 feet of the top of the bank above the beach. The black sand was temporarily placed in a lined and covered stockpile until the soil was characterized for proper offsite management. After stockpile sample results indicated that the stockpiled black sand was non-hazardous, the material was disposed off site at the Hillsboro solid waste landfill. After removal of the stockpiled soil, the temporary stockpile area was scraped and the surface soil also disposed at the offsite landfill.

The removal area along the top of the bank was backfilled with 262 tons of import granular fill material. The backfilled area was then seeded with native grass and covered with an erosion protection blanket. No backfill was placed in the beach removal area in accordance with the approved work plan

## SECTION 2

# PRE MOBILIZATION ACTIVITIES

---

Several activities were necessary prior to starting the removal action field activities.

## 2.1 Work Plan Preparation

Bridgewater Group, on behalf of Crawford Street Corporation, prepared a *Black Sand Removal Action Work Plan* for the Crawford Street site (Work Plan). The Work Plan, dated October 5, 2001, was submitted to DEQ. DEQ approved the Work Plan in an October 9, 2001, letter.

The Work Plan presented the procedures and processes that were to be used to perform the black sand removal work.

## 2.2 Permitting

Permits from various federal and local agencies were necessary to perform the removal work.

### 2.2.1 Oregon Division of State Lands

The Oregon Division of State Lands (DSL) requires a fill and removal permit for work that is performed below the Ordinary High Water level in the river. However, DEQ cleanup rules provide for waiving of state and local permits such as the DSL permit as long as the *substantive requirements* of the permit are met. DEQ, in consultation with DSL, determined that the procedures and processes that were presented in the Work Plan (particularly the Site Control Measures presented in Section 2.3) met the *substantive requirements* standard and no DSL permit was required or obtained.

### 2.2.2 U.S. Army Corps of Engineers

Permit authorization was obtained from the U.S. Army Corps of Engineers (COE) under a Nationwide Permit No. 38. The permit application was submitted to the COE on September 13, 2001. A *Pollution and Erosion Control Plan* was prepared and submitted to the COE on September 21, 2001. The COE provided formal permit authorization in an October 17, 2001 letter.

### 2.2.3 Other Permits and Reviews

Representatives of DEQ, CSC, and the City of Portland discussed the planned work and the potential applicability of Willamette Greenway regulations to the project. As noted in an October 19, 2001 letter to Kate Green at the City of Portland; the removal work was conducted as a time-sensitive emergency action under the directive of DEQ and, therefore, was not reviewed under the Willamette Greenway standards and procedures, pursuant to City of Portland regulations.

## SECTION 3

# REMOVAL ACTIVITIES

---

On-site activities were performed starting October 17, 2001 and, except for bank reseeding, were completed on November 9, 2001. This section describes the specific activities performed. All on-site activities were performed in accordance with the DEQ-approved Work Plan. Appendix A presents representative photographs of the removal activities.

## 3.1 Contactor Mobilization and Site Preparation

Envirocon (Contractor) mobilized to the site on October 17, 2001. Initial Contractor activities consisted of installing the silt fence along the shoreline and constructing the stockpile area. A decontamination fluid containment tray and exclusion zone fencing was also installed in accordance with the Work Plan.

Equipment mobilized to the site included track hoe, water truck, and an Ace Guzzler vacuum truck capable of producing a 27-inch vacuum. A second, similar, vacuum truck was mobilized to the site on the second day of removal work to increase production.

The stockpile area was constructed immediately north of the bank removal area rather than along the western boundary of the property as proposed in the Work Plan. Figure 1-2 shows the location of the stockpile area. Locating the stockpile area in this area decreased the haul distance for the track hoe during the bank removal work and for the vacuum trucks during the beach removal work. Locating the stockpile in this area also increased the security of the stockpile area and reduced the potential for black sand from being spilled in areas away from the removal areas.

## 3.2 Beach Removal

Figure 3-1 shows the final extent of the black sand removal on the beach. Black sand was removed from approximately 2100 square feet of beach with the removal depths ranging from less than 2-inches to about 2 feet. Approximately 65 in-place cubic yards of black sand were removed from the beach. Figure 3-2 shows the approximate depth of the beach removal.

In accordance with the approved work plan, the horizontal and vertical extent of the black sand removal was based on visual indicators. In particular, the removal was focused toward material with a distinctive black color as opposed to grayish and brown sand that was also present on the beach.

The black sand was removed by vacuuming the sand through a 6-inch diameter hose connected to the vacuum truck, which was parked at the top of the bank. The hose was manually maneuvered around the removal area by a laborer. The vacuum truck was periodically emptied into the stockpile area during the vacuuming process.

Rocks greater than about 3-inch diameter were segregated from the sand prior to the sand being sucked into the hose. The rocks were placed back into the removal area. Black sand was removed from the area around and, to a limited extent, below concrete and wood debris present on the beach. Large (greater than about 1-foot) debris was not moved. Black sand was removed from beneath logs and large concrete debris only to the extent possible without undermining the logs and possibly causing the logs and debris to move.

The soil underlying the removed black sand consisted of brown, fine-sandy silt. There was a distinct contact (based on color and gradation of the materials) between the black sand and the underlying brown silt. Soil along the northern edge of the removal area consisted of a dark brown sandy silt. The southern edge of the removal area was bordered with poorly graded, gray sand.

### **3.3 Bank Removal and Restoration**

#### **3.3.1 Bank Black Sand Removal**

Figure 3-1 shows the final extent of the removal from along the bank. Black sand was removed from edge of the bank to a point at least 10 feet back from the bank edge. The depth of the black sand along the bank varied from less than 4-inches at the western and eastern ends of the removal area to about 6 feet in the center of the bank removal area. About 190 in-place cubic yards of black sand was removed from along the bank. The length of the bank removal area was about 135 feet.

The material was removed using a track hoe located along the top of the bank. The track hoe would excavate the black sand and then transport it to the adjacent stockpile area. Care was taken to not spill the excavated material from the bucket while transporting it to the stockpile area.

The soil present under the black sand consisted of a brown, fine sandy silt. Wood and concrete debris was present in the black sand along the bank edge. The black sand was overlain by about 12-inches of gravel fill along the northern edge of the removal area.

#### **3.3.2 Bank Backfilling and Restoration**

Once the black sand was removed from the bank edge, the resulting slope bench was backfilled with a silty, sandy gravel import fill. The fill was placed with a front-end loader and compacted to a dense non-yielding state using the front-end loader bucket.

The fill was obtained from the C.C. Meisel Town quarry in McMinnville, Oregon. Samples have been previously obtained from this quarry and analyzed for petroleum hydrocarbons, PCBs, pesticides, polycyclic aromatic hydrocarbons, arsenic, cadmium, chromium, lead, and mercury. No petroleum hydrocarbons, PCBs, pesticides, polycyclic aromatic hydrocarbons, cadmium, or mercury were detected. The measured concentrations of arsenic, chromium, and lead were well within typical background concentrations (all less than 7 mg/kg).

The backfilled area was reseeded with a native seed mixture provided by the City of Portland, Bureau of Environmental Services, Watershed Revegetation Program. An erosion control blanket was placed over the reseeded area.

## **3.4 Soil Management**

### **3.4.1 Soil Stockpile**

Black sand removed from the beach and bank was placed in a temporary stockpile located about 100 feet north of the bank edge, adjacent to the removal area. Figure 1-2 shows the stockpile area. A 12-mil-thick plastic bottom liner was placed across the stockpile area. The area was scraped and sharp debris removed prior to placing the bottom liner.

The stockpile area perimeter was bermed with straw bales, which were also covered by the bottom liner. After the black sand was placed in the stockpile, the stockpile was covered with at least two layers of 6-mil plastic. Sand bags were placed on top of the top liner to secure the cover.

### **3.4.2 Stockpile Soil Waste Designation**

Three representative soil samples were collected from the stockpiled black sand. The samples were collected over the course of the removal and stockpiling process to ensure the representativeness of the samples. The three samples included both black sand removed from the beach and black sand removed from the edge of the bank.

In accordance with the approved work plan, the three samples were analyzed for TCLP lead. Based on previous sampling and analysis, the stockpiled black sand was considered a potential characteristic hazardous waste due to elevated lead concentrations. At the request of the disposal facility, two samples were also analyzed for TCLP chromium.

Table 3-1 presents the results of the TCLP lead and chromium analysis.

**Table 3-1**

TCLP Lead and Chromium Concentrations in Stockpile Soil Samples  
*Crawford Street Removal Action*

Stockpile Sample	TCLP Concentration in mg/l	
	Lead	Chromium
SP-1	4.73	Not Analyzed
SP-2	0.381	0.02U
SP-3	3.14	0.101
Haz Waste Criteria	5	5

As noted in Table 3-1, none of the sample TCLP concentrations exceeded the hazardous waste criteria. Based on these sample analysis results, the stockpiled black sand was not designated a hazardous waste.

### 3.4.3 Soil Stockpile Offsite Disposal

The stockpiled black sand was loaded into dump trucks and end dumps and hauled to the Hillsboro Landfill and placed in the landfill under Permit No. 5947 provided by Waste Management, owner of the landfill. The loading, hauling, and disposal were performed on November 9, 2001. Appendix B presents copies of the weigh slips for the offsite landfill disposal.

The plastic used for the top cover and the bottom liner and the straw bales were disposed offsite with the soil. The upper few inches of the soil directly underlying the bottom liner was scraped and included in the material disposed in the landfill. Similarly, the upper few inches of soil in the general loading area was scraped and also included in the material disposed in the landfill. At the conclusion of the stockpile removal, there were no visual indications of any black sand in the stockpile or loading area. No evidence that the bottom liner had been breached prior to its removal was observed.



## SECTION 4

# SAMPLING AND ANALYSIS OF BEACH REMOVAL AREA

---

Soil samples were collected from the bottom and the perimeter of the beach removal area to assess the concentrations of hazardous substances in the soil remaining in the area around the beach removal area.

## 4.1 Sample Locations and Procedures

Figure 4-1 shows the location of the soil sample areas and perimeters. The soil samples were collected in accordance with the Work Plan. In particular, bottom samples were collected at a frequency of one sample per every 400 ft<sup>2</sup> or less and perimeter samples were collected at a frequency of one sample per every 30 feet or less of perimeter length. Each bottom and perimeter sample consisted of a composite of at least five subsamples collected representatively in the sampling area (bottom samples) or along the sampling length (perimeter samples).

The perimeter samples were collected from along the sidewall of the removal area where the depth of the removal was greater than 6 inches. This was generally the case along the southern edge of the beach removal area. Where the removal depth was less than 6 inches, the perimeter samples were collected from the upper 4 inches of the area within 1-foot beyond the edge of the removal area.

Perimeter samples collected from along the southern edge of the removal area consisted primarily of poorly graded, gray sand. Perimeter samples from along the northern edge consisted of a mixture of poorly graded, gray sand and dark brown very sandy silt. The bottom samples generally consisted of brown, fine sandy silt.

Perimeter soil samples were not collected from some portions of the removal area northern perimeter. Perimeter samples were not collected in this area due to the presence of large debris and the associated inability to obtain representative samples.

The samples were collected with clean, stainless steel spoons and placed in laboratory-supplied glass jars. The samples were transported to the analytical laboratory under chain-of-custody procedures.

## 4.2 Sample Analyses Results

Tables 4-1, 4-2, and 4-3 present the petroleum hydrocarbon, PAH, and PCB concentrations, respectively, in the beach removal area samples.

Tables 4-4 presents the total metal concentrations in the beach removal area samples.

Table 4-5 presents the TCLP metal concentrations in the beach removal area samples. The work plan noted that samples with lead concentrations greater than 100 mg/kg would be analyzed for TCLP lead. Given the number of samples that had lead concentrations greater than 100 mg/kg, only a representative number of samples meeting this criterion were analyzed for TCLP lead. The samples were chosen to represent a range of total lead concentrations.

Tables 4-2 through 4-5 also present criteria currently being used by DEQ as initial screening criteria for sediments. In particular, the following criteria are included on the tables:

- Oregon DEQ sediment ecological Screening Level Values (SLVs).
- McDonald, et. al. Consensus Probable Effects Concentrations (PECs).

These criteria are presented as general comparison benchmarks for the measured concentrations and do not represent cleanup levels or levels that would be presumed to cause an unacceptable risk to humans or the environment.

Specific observations include:

- None of the samples had a total PAH concentration greater than the McDonald PEC criteria. The highest total PAH concentration was less than  $\frac{1}{2}$  of the McDonald PEC.
- Only one sample (P-19) has an individual PAH concentration (pyrene) that exceeds the McDonald PEC criteria for PAHs (exceedance factor of 1.4).
- About 40 percent of the total PAH concentrations exceed the DEQ SLV. SLV exceedance rates for the individual PAHs ranged from 0 percent for naphthalene to 88 percent for pyrene.
- PCBs were not detected in any of the removal area samples at a detection limit of 0.05 mg/kg.
- All of the samples had copper concentrations greater than the McDonald PECs. Sixty percent of the samples had nickel concentrations greater than the McDonald PEC. Twenty eight percent of the samples had lead and chromium concentrations exceeding the McDonald PEC. None of the samples had mercury or zinc concentrations greater than the McDonald PEC. One sample had a mercury concentration approximately equal to the DEQ SLV.

Figure 4-2 shows the PAH, copper, and nickel concentrations in post-removal soil samples. As noted on the figure, the relative concentrations are generally consistent across the removal area and between the bottom and perimeter samples. Somewhat greater concentrations were measured in samples from the northern perimeter of the removal area.

Copies of the analytical laboratory reports are provided in Appendix C.

**Table 4-1**  
**Petroleum Hydrocarbon Concentrations in Removal Area Soil Samples**  
**Crawford Street**  
All results in mg/kg

Sample	Type	Gasoline	Diesel	Heavy Oil
B-1	Bottom	22.2 U	55.6 U	111 U
B-2	Bottom	22.2 U	55.6 U	111 U
B-3	Bottom	25 U	62.5 U	125 U
B-3D	Bottom	23.3 U	58.1 U	116 U
B-4	Bottom	22.5 U	56.2 U	112 U
B-5	Bottom	22 U	54.9 U	110 U
B-6	Bottom	21.7 U	54.3 U	109 U
B-7	Bottom	23.5 U	53.4	179
P-01	Perimeter	20.6 U	51.5 U	103 U
P-02	Perimeter	20.8 U	52.1 U	104 U
P-03	Perimeter	21.7 U	54.3 U	109 U
P-04	Perimeter	20.8 U	52.1 U	104 U
P-05	Perimeter	21.7 U	21.7 U	87
P-06	Perimeter	20.4 U	51 U	102 U
P-07	Perimeter	20.2 U	50.5 U	101 U
P-07D	Perimeter	20.4 U	51 U	102 U
P-08	Perimeter	20.2 U	50.5 U	101 U
P-09	Perimeter	21.5 U	21.5 U	53.8 U
P-10	Perimeter	20.4 U	51 U	102 U
P-11	Perimeter	21.3 U	21.3 U	56.9
P-15	Perimeter	20.4 U	51 U	102 U
P-17	Perimeter	20.2 U	50.5 U	101 U
P-18	Perimeter	21.5 U	53.8 U	108 U
P-19	Perimeter	20.6 U	30.1	68.6
P-20	Perimeter	21.5 U	53.8 U	108 U

U - Not detected at noted reporting limit  
NA - Not analyzed

**Table 4-2**  
**PAHs Concentrations in Removal Area Soil Samples**  
**Crawford Street**  
All results in mg/kg

Sample	Type	Acenaphthene (L)	Acenaphthylene (L)	Anthracene (L)	Benzo(a)anthracene (H)	Benzo(a)pyrene (H)	Benzo(b)fluoranthene (H)	Benzo(g,h,i)perylene (H)	Benzo(k)fluoranthene (H)	Chrysene (H)	Dibenzo(a,h)anthracene (H)	Fluoranthene (H)	Fluorene (L)	Indeno(1,2,3-cd)pyrene (H)	Naphthalene (L)	Phenanthrene (L)	Pyrene (H)	LPAHs	HPAHs	Total PAHs
B-1	Bottom	0.05 U	0.05 U	0.1	0.08	0.095	0.065	0.05 U	0.1	0.12	0.05 U	0.215	0.05 U	0.05 U	0.05 U	0.18	0.205	0.38	0.96	1.34
B-2	Bottom	0.05 U	0.05 U	0.05	0.07	0.095	0.06	0.095	0.09	0.11	0.05 U	0.165	0.05 U	0.055	0.05 U	0.09	0.017	0.24	0.78	1.02
B-3	Bottom	0.105	0.055	0.575	0.405	0.495	0.315	0.295	0.435	0.48	0.09	1.08	0.2	0.235	0.14	1.04	1.01	2.12	4.82	6.94
B-3D	Bottom	0.105	0.065	0.51	0.5	0.585	0.385	0.47	0.645	0.595	0.05 U	1.21	0.17	0.35	0.09	1.04	1.54	1.98	6.31	8.29
B-4	Bottom	0.095	0.055	0.445	0.435	0.525	0.37	0.345	0.485	0.545	0.1	1.04	0.17	0.275	0.085	0.925	1	1.78	5.12	6.90
B-5	Bottom	0.075	0.05 U	0.225	0.24	0.28	0.205	0.245	0.275	0.305	0.065	0.69	0.11	0.19	0.055	0.64	0.585	1.13	3.08	4.21
B-6	Bottom	0.05 U	0.05 U	0.13	0.115	0.175	0.115	0.165	0.155	0.165	0.05 U	0.265	0.05 U	0.105	0.05 U	0.205	0.28	0.44	1.57	2.00
B-7	Bottom	0.05 U	0.05 U	0.05	0.08	0.135	0.09	0.165	0.105	0.12	0.05 U	0.16	0.05 U	0.1	0.05 U	0.08	0.185	0.23	1.17	1.40
P-01	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065	0.05 U	0.05 U	0.05 U	0.05 U	0.07	0.15	0.34	0.49
P-02	Perimeter	0.05 U	0.05 U	0.13	0.22	0.23	0.18	0.18	0.215	0.285	0.05 U	0.605	0.05 U	0.13	0.05 U	0.46	0.515	0.69	2.59	3.28
P-03	Perimeter	0.05 U	0.05 U	0.205	0.19	0.21	0.155	0.05 U	0.23	0.26	0.05 U	0.47	0.05	0.05 U	0.05 U	0.385	0.54	0.72	2.13	2.85
P-04	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-05	Perimeter	0.05 U	0.05 U	0.18	0.085	0.08	0.055	0.05 U	0.09	0.115	0.05 U	0.25	0.05 U	0.05 U	0.05 U	0.25	0.25	0.53	1.00	1.53
P-06	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.07	0.05 U	0.05 U	0.05 U	0.05	0.07	0.18	0.34	0.52
P-07	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05	0.05 U	0.05 U	0.05 U	0.05	0.055	0.18	0.31	0.48
P-07D	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065	0.05 U	0.05 U	0.05 U	0.05	0.08	0.18	0.35	0.52
P-08	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05	0.05 U	0.11	0.05 U	0.05 U	0.05 U	0.09	0.115	0.22	0.45	0.67
P-09	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.06	0.15	0.31	0.46
P-10	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
P-11	Perimeter	0.05 U	0.05 U	0.07	0.075	0.14	0.11	0.05 U	0.085	0.15	0.05 U	0.195	0.05 U	0.05 U	0.05 U	0.145	0.26	0.32	1.09	1.41
P-15	Perimeter	0.05 U	0.05 U	0.21	0.11	0.115	0.07	0.05 U	0.145	0.145	0.05 U	0.31	0.065	0.05 U	0.06	0.29	0.415	0.68	1.39	2.06
P-17	Perimeter	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.065	0.05 U	0.05 U	0.05 U	0.05 U	0.08	0.15	0.35	0.50
P-18	Perimeter	0.05 U	0.05 U	0.05	0.055	0.065	0.05	0.05 U	0.085	0.075	0.05 U	0.135	0.05 U	0.05 U	0.05 U	0.085	0.16	0.24	0.70	0.94
P-19	Perimeter	0.075	0.085	0.5	0.6	0.885	0.56	0.69	0.78	0.845	0.05 U	1.49	0.15	0.47	0.095	0.795	2.06	1.70	8.41	10.11
P-20	Perimeter	0.065	0.05 U	0.16	0.195	0.275	0.21	0.275	0.285	0.245	0.05 U	0.49	0.09	0.185	0.05 U	0.475	0.57	0.84	2.76	3.60
DEQ Sediment Screening Level Value		0.29	0.16	0.057	0.032	0.032		0.3	0.027	0.057	0.033	0.111	0.077	0.017	0.176	0.042	0.053	0.076	0.193	1.61
McDonald Consensus PECs				0.845	1.05	1.45				1.29		2.23	0.536		0.561	1.17	1.52			22.8

U - Not detected at noted reporting limit

NA - Not analyzed

**Table 4-3**  
**PCB Concentrations in Removal Area Soil Samples**  
**Crawford Street**

All results in mg/kg

Sample	Type	PCBs
B-1	Bottom	0.05 U
B-2	Bottom	0.05 U
B-3	Bottom	0.05 U
B-3D	Bottom	0.05 U
B-4	Bottom	0.05 U
B-5	Bottom	0.05 U
B-6	Bottom	0.05 U
B-7	Bottom	0.05 U
P-01	Perimeter	0.05 U
P-02	Perimeter	0.05 U
P-03	Perimeter	0.05 U
P-04	Perimeter	0.05 U
P-05	Perimeter	0.05 U
P-06	Perimeter	0.05 U
P-07	Perimeter	0.05 U
P-07D	Perimeter	0.05 U
P-08	Perimeter	0.05 U
P-09	Perimeter	0.05 U
P-10	Perimeter	0.05 U
P-11	Perimeter	0.05 U
P-15	Perimeter	0.05 U
P-17	Perimeter	0.05 U
P-18	Perimeter	0.05 U
P-19	Perimeter	0.05 U
P-20	Perimeter	0.05 U
DEQ Sediment Screening Level Value		0.034
McDonald Consensus PECs		0.676

U - Not detected at noted reporting limit

NA - Not analyzed

**Table 4-4****Total Metals Concentrations in Removal Area Soil Samples****Crawford Street**

All results in mg/kg

Sample	Type	Chromium	Copper	Lead	Mercury	Nickel	Zinc
B-1	Bottom	50.8	396	46.5	0.1 U	28.1	152
B-2	Bottom	75.9	558	1890	0.21	129	262
B-3	Bottom	99.3	764	240	0.1 U	44.4	282
B-3D	Bottom	100	968	84.6	0.12	67.3	384
B-4	Bottom	139	1390	265	0.1 U	72.8	302
B-5	Bottom	144	1380	45.6	0.1 U	104	246
B-6	Bottom	79.2	1130	36.3	0.1 U	54	183
B-7	Bottom	33.2	292	30.6	0.1 U	24.5	132
P-01	Perimeter	104	745	20.5	0.1 U	73.1	107
P-02	Perimeter	92.7	760	48.3	0.1 U	59.2	157
P-03	Perimeter	137	1260	404	0.1 U	75.9	279
P-04	Perimeter	95.5	752	14.4	0.1 U	34.6	94.7
P-05	Perimeter	61.1	581	50.7	0.1 U	26.9	139
P-06	Perimeter	111	926	20.5	0.1 U	50.2	102
P-07	Perimeter	89.6	784	18.5	0.1 U	43.7	111
P-07D	Perimeter	86.5	718	13.9	0.1 U	34.9	106
P-08	Perimeter	98.6	897	11.6	0.1 U	33.4	98.6
P-09	Perimeter	84.2	846	15.4	0.1 U	34.1	103
P-10	Perimeter	111	801	14.3	0.1 U	58.3	101
P-11	Perimeter	87.4	857	48.5	0.1 U	37.6	111
P-15	Perimeter	120	1240	26.1	0.1 U	77.8	146
P-17	Perimeter	116	1730	55.9	0.1 U	144	167
P-18	Perimeter	101	1200	3130	0.1 U	285	314
P-19	Perimeter	179	1890	656	0.1 U	140	312
P-20	Perimeter	142	1330	434	0.1 U	50.8	269
DEQ Sediment Screening Level Value		37	36	35	0.2	18	123
McDonald Consensus PECs		111	149	128	1.06	48.6	459

U - Not detected at noted reporting limit

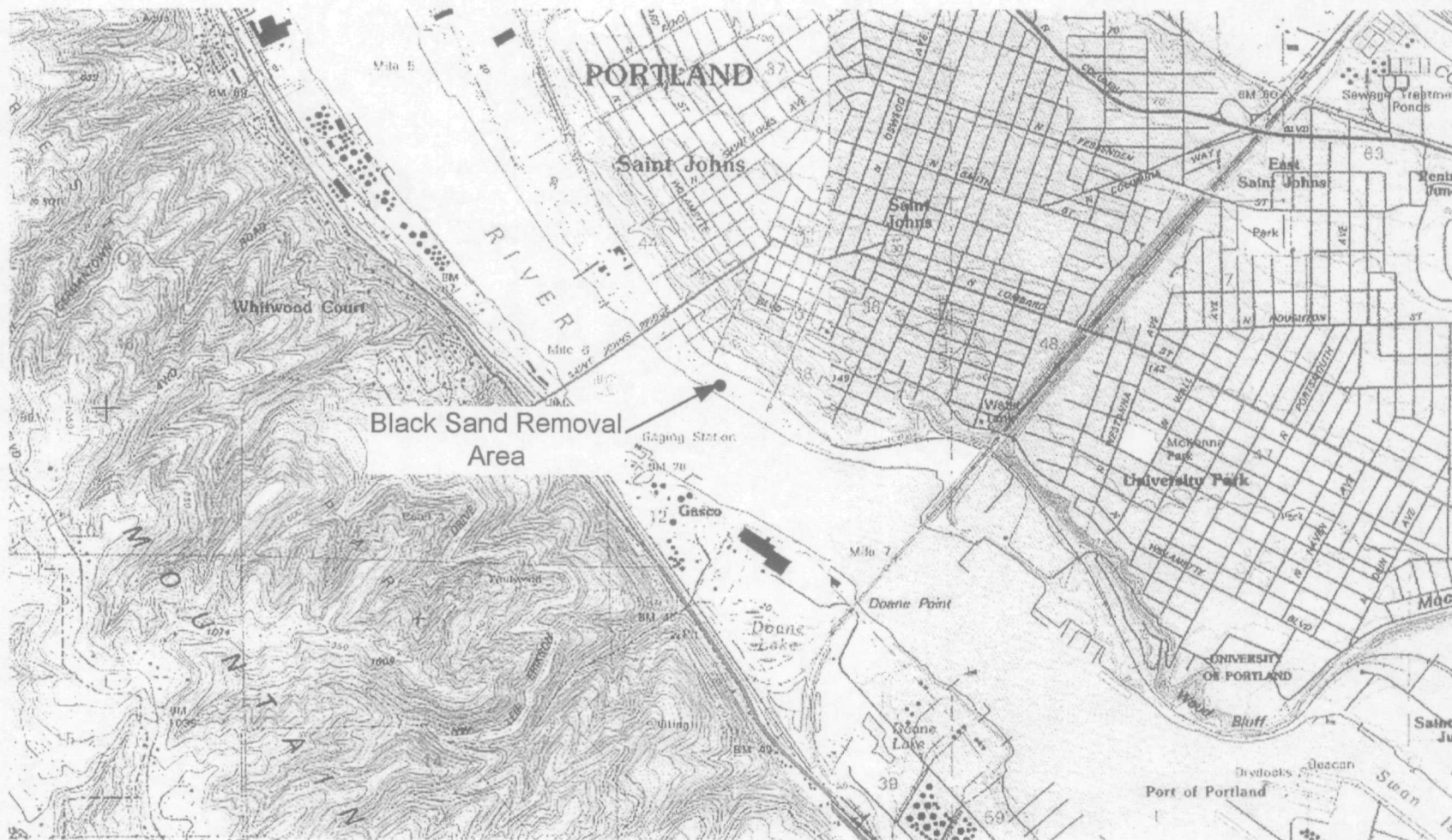
NA - Not analyzed

**Table 4-5**  
**TCLP Lead Concentrations in Removal Area Soil Samples**  
**Crawford Street**  
All results in mg/l

Sample	Type	TCLP Lead
B-1	Bottom	NA
B-2	Bottom	23
B-3	Bottom	0.06
B-3D	Bottom	NA
B-4	Bottom	NA
B-5	Bottom	NA
B-6	Bottom	NA
B-7	Bottom	NA
P-01	Perimeter	NA
P-02	Perimeter	NA
P-03	Perimeter	1.27
P-04	Perimeter	NA
P-05	Perimeter	NA
P-06	Perimeter	NA
P-07	Perimeter	NA
P-07D	Perimeter	NA
P-08	Perimeter	NA
P-09	Perimeter	NA
P-10	Perimeter	NA
P-11	Perimeter	NA
P-15	Perimeter	NA
P-17	Perimeter	NA
P-18	Perimeter	3.9
P-19	Perimeter	NA
P-20	Perimeter	NA

U - Not detected at noted reporting limit

NA - Not analyzed



Black Sand Removal Area at  
 $45^{\circ} 35' 3'' \text{ N}$  and  $122^{\circ} 45' 25'' \text{ W}$

Approximate Scale

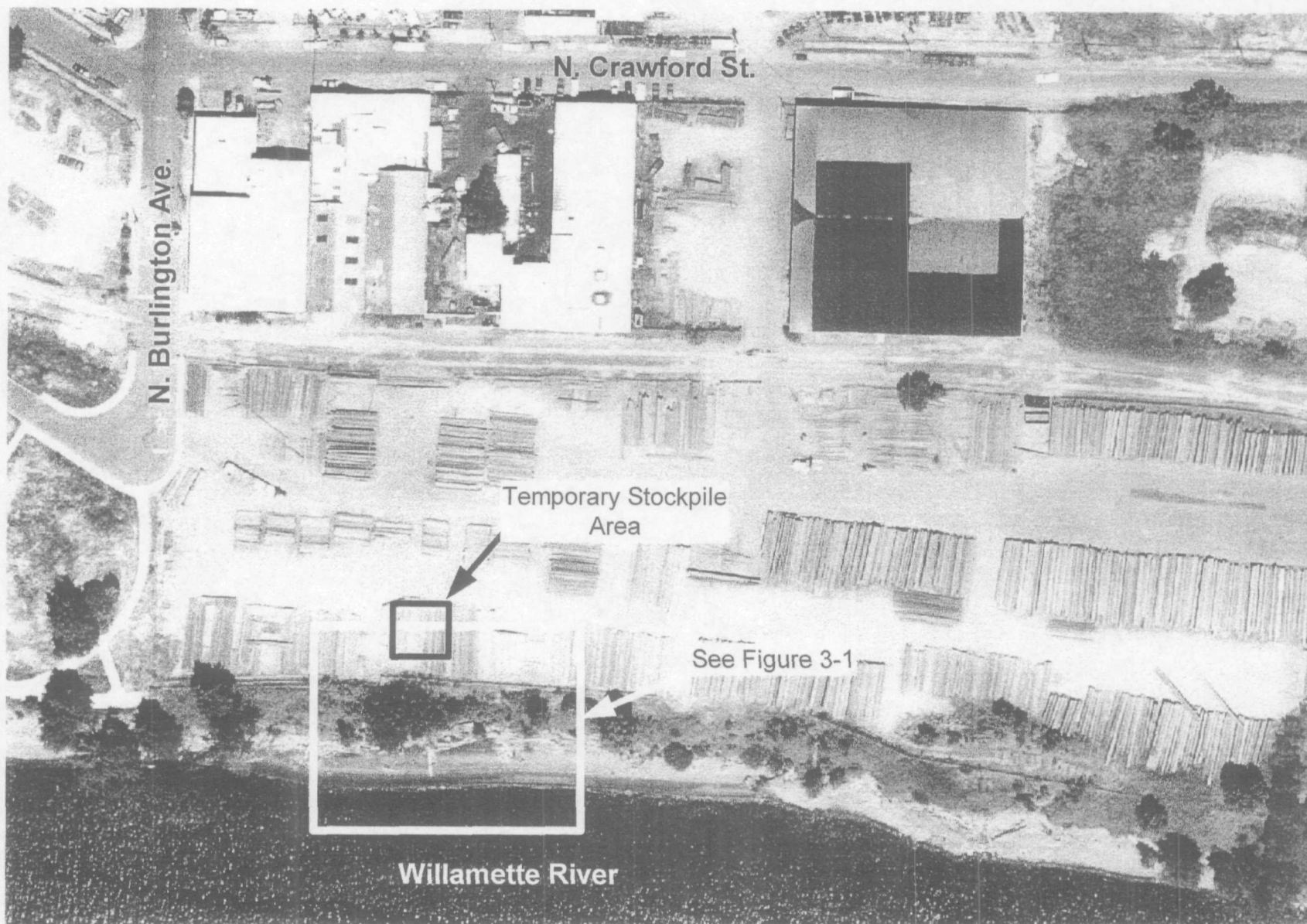


2400 feet

**Figure 1-1**  
 Site Location Map  
 Crawford Street Corporation Site

BRIDGEWATER GROUP, INC.





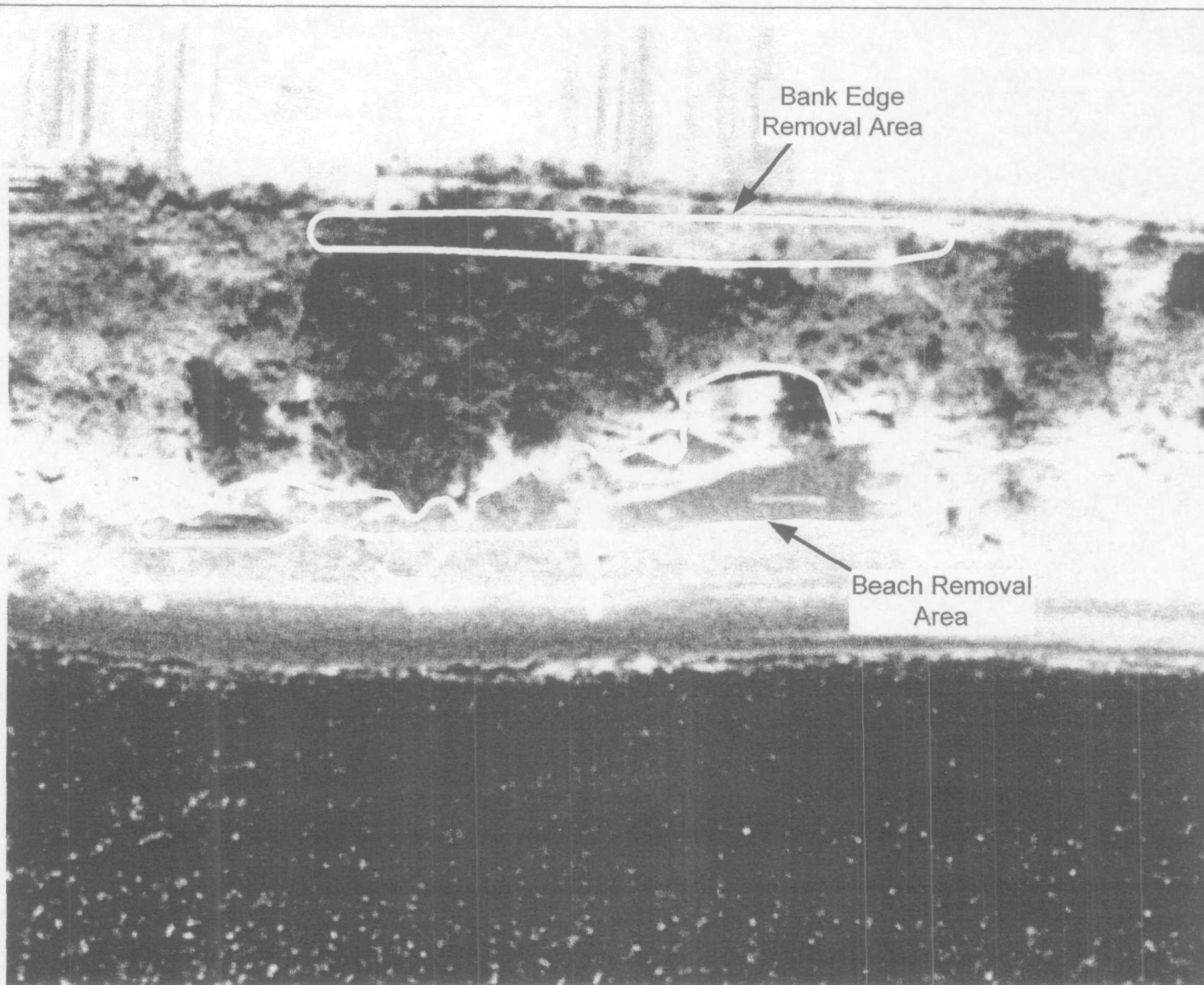
Approximate Scale  
128 ft.

**Figure 1-2**

Site Plan

Crawford Street Corporation

BRIDGEWATER GROUP, INC.



Project

Approximate Scale

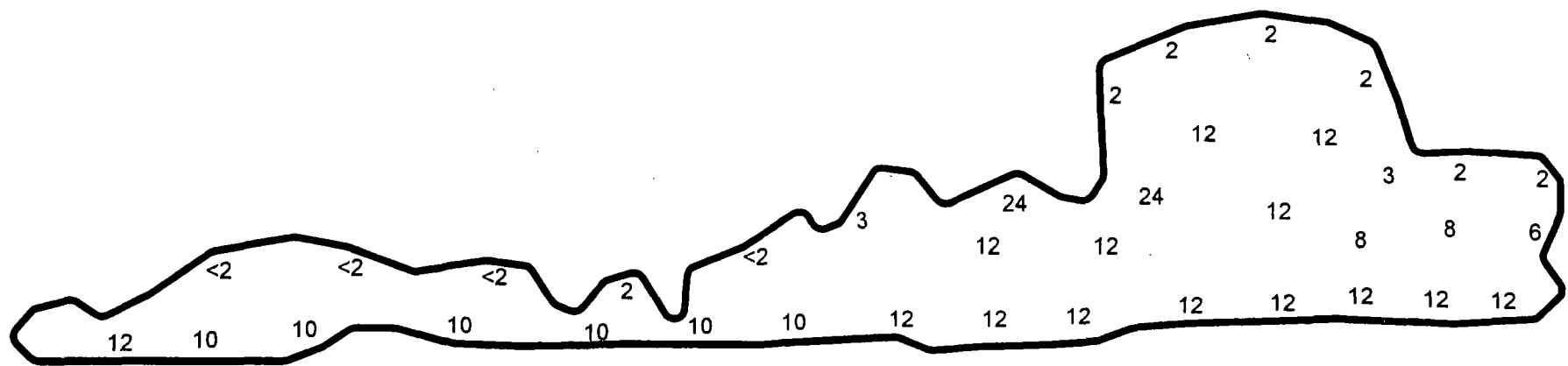


30 feet

**Figure 3-1**

Black Sand Removal Areas  
Crawford Street Corporation

BRIDGEWATER GROUP, INC.



10 Approximate Removal Depth in Inches

### Approximate Scale



17 Feet



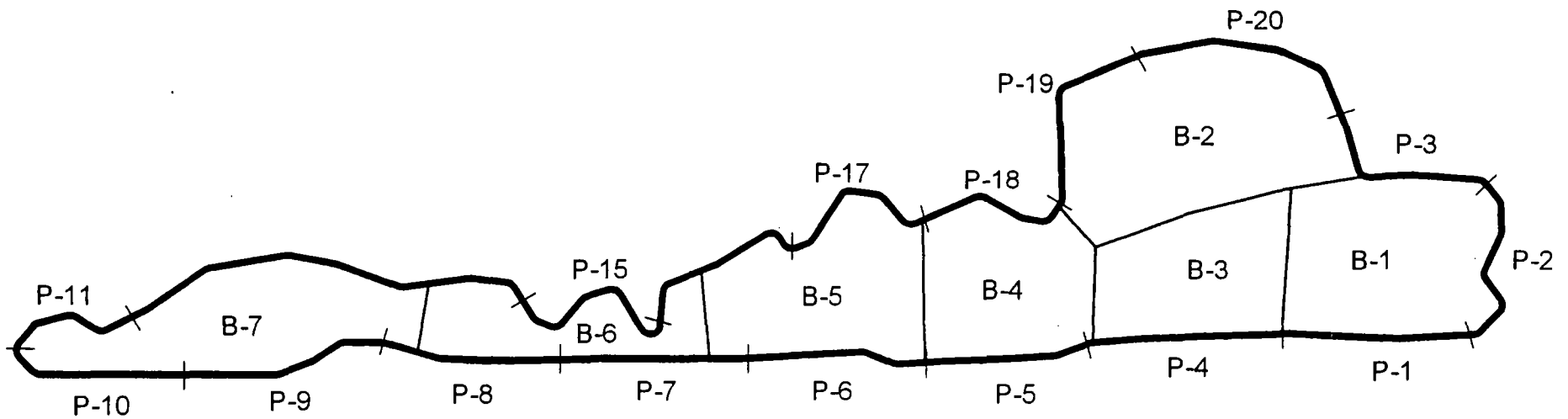
Project

See Figures 1-2 and 3-1 for orientation/location of removal area on site

**Figure 3-2**

Beach Removal Area Depths  
Crawford Street Corporation

**BRIDGEWATER GROUP, INC.**



B-7 Bottom Post-Removal Soil Sample Location  
P-8 Perimeter Post-Removal Soil Sample Location

Approximate Scale



17 Feet

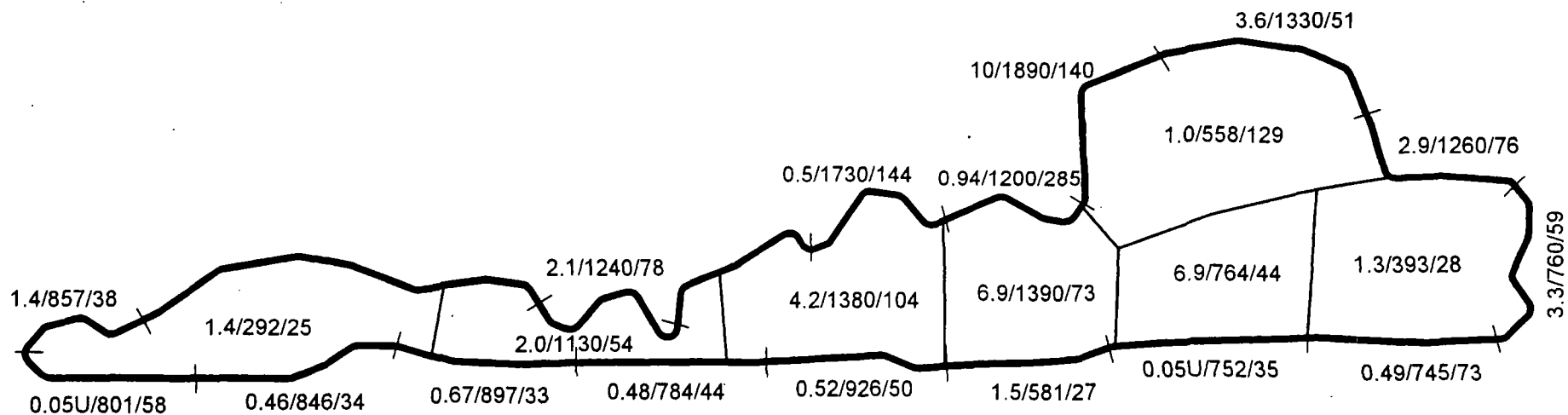


Project

See Figures 1-2 and 3-1 for orientation/location of removal area on site

**Figure 4-1**  
Beach Removal Area Sample Locations  
Crawford Street Corporation

BRIDGEWATER GROUP, INC.



0.67/897/33 Total PAH/ Copper/Nickel Concentrations in mg/kg

Approximate Scale



17 Feet



Project

See Figures 1-2 and 3-1 for orientation/location of removal area on site

**Figure 4-2**

PAH, Copper, and Nickel Concentrations in  
Post-Removal Soil Samples  
Crawford Street Corporation

BRIDGEWATER GROUP, INC.

APPENDIX A

# PHOTOGRAPHS

---





**Photo No. 1**

**Photo Date: 10/17/01**

Looking southeast at stockpile area. Starting to scrape and level stockpile area.



**Photo No. 2**

**Photo Date: 10/17/01**

Looking northeast from stockpile area. Raking and hand removal of debris from stockpile base, after scraping with trackhoe and before placement of liner.

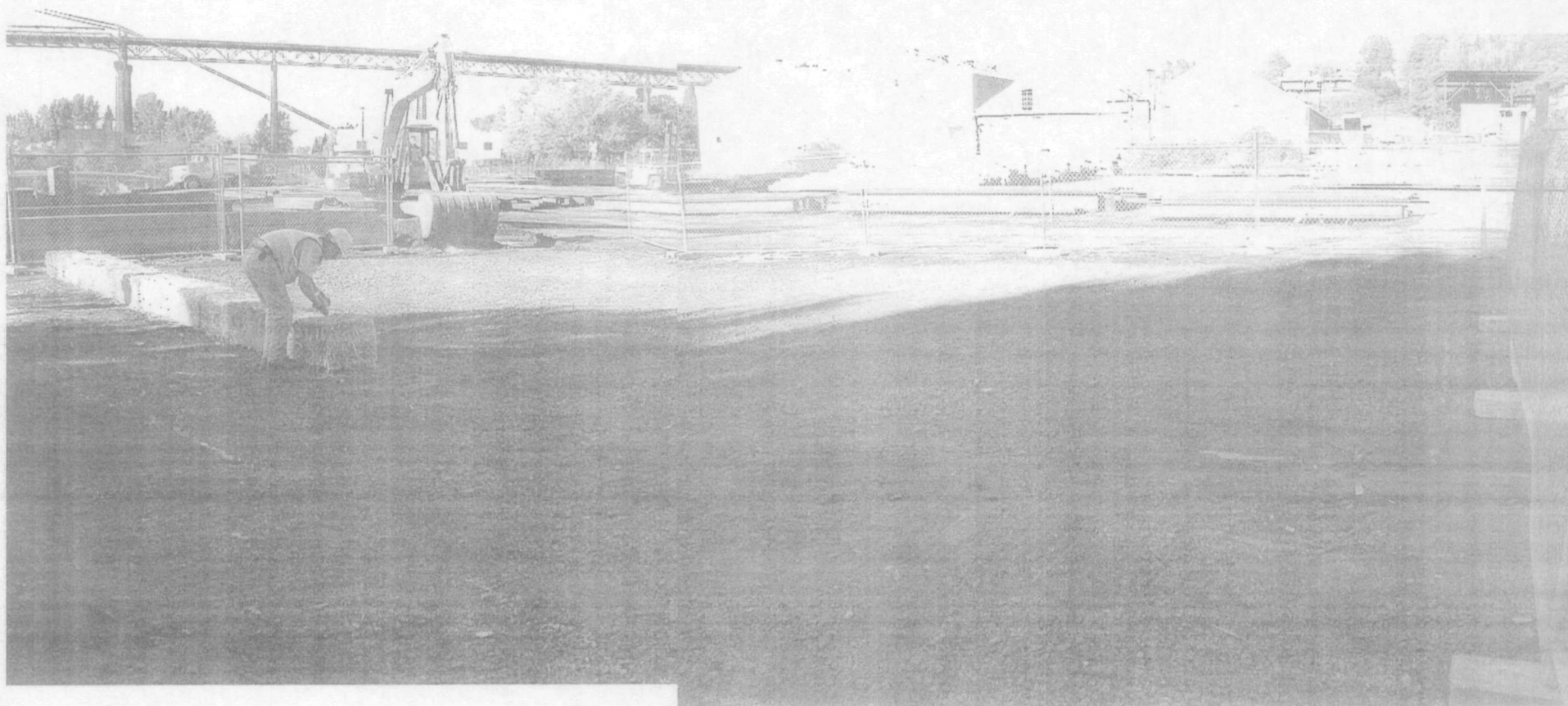


Photo No. 3

Photo Date: 10/17/01

---

Stockpile area before placing bottom liner.

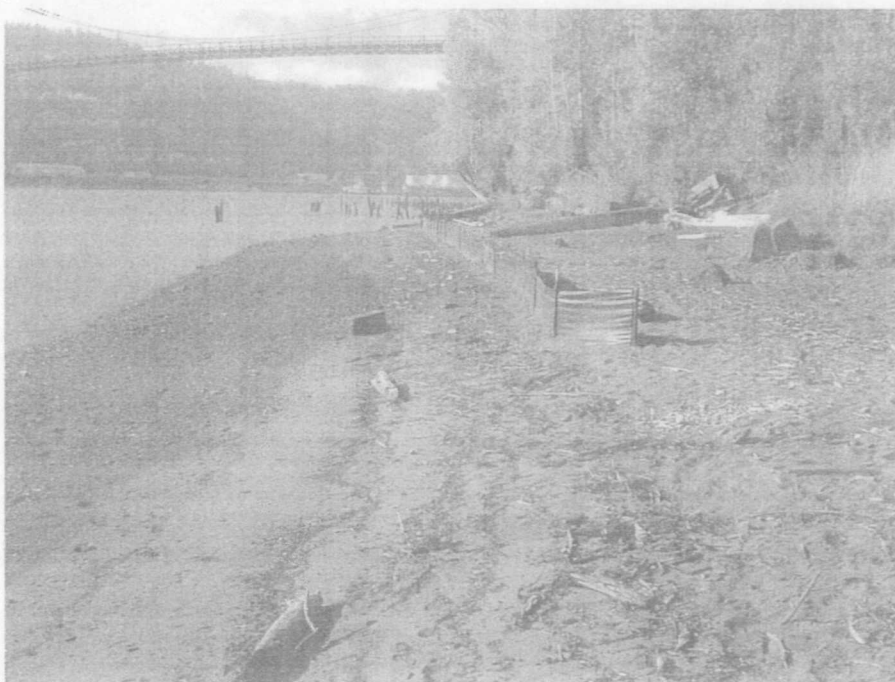




**Photo No. 4**

**Photo Date: 10/18/01**

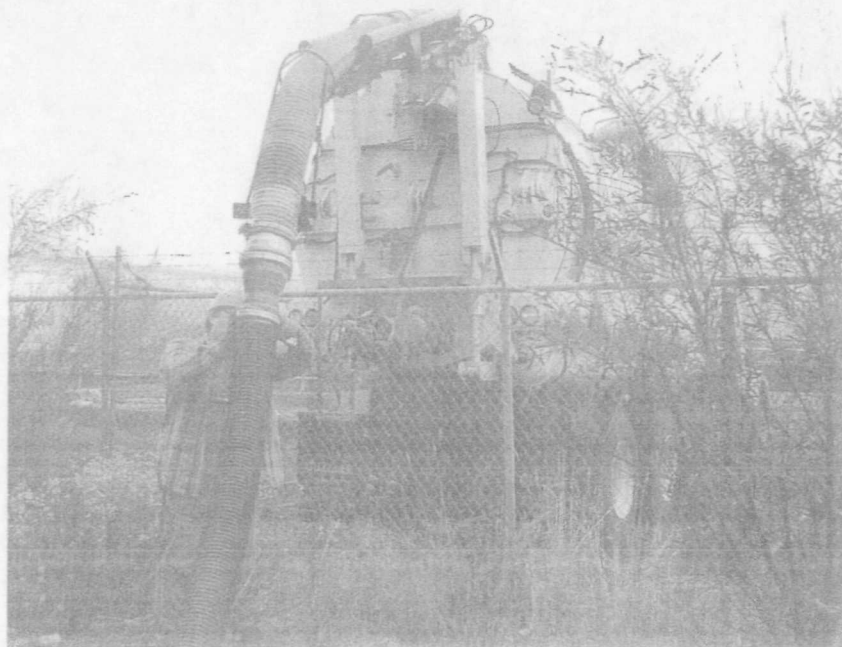
Looking east. Completed stockpile area. Decontamination tray in foreground. Vacuum truck in background.



**Photo No. 5**

**Photo Date: 10/17/01**

Looking west along shoreline. Silt fence placed between removal area and the water.



**Photo No. 6**

**Photo Date: 10/18/01**

Looking northwest. Hooking vacuum line to vacuum truck.



**Photo No. 7**

**Photo Date: 10/18/01**

Looking north from shoreline. Vacuuming black sand from beach.



**Photo No. 8**

**Photo Date: 10/18/01**

Looking northwest. Dumping full vacuum truck in stockpile area.



**Photo No. 9**

**Photo Date: 10/19/01**

Looking southeast at covered stockpile at end of day. Vacuum trucks in background.



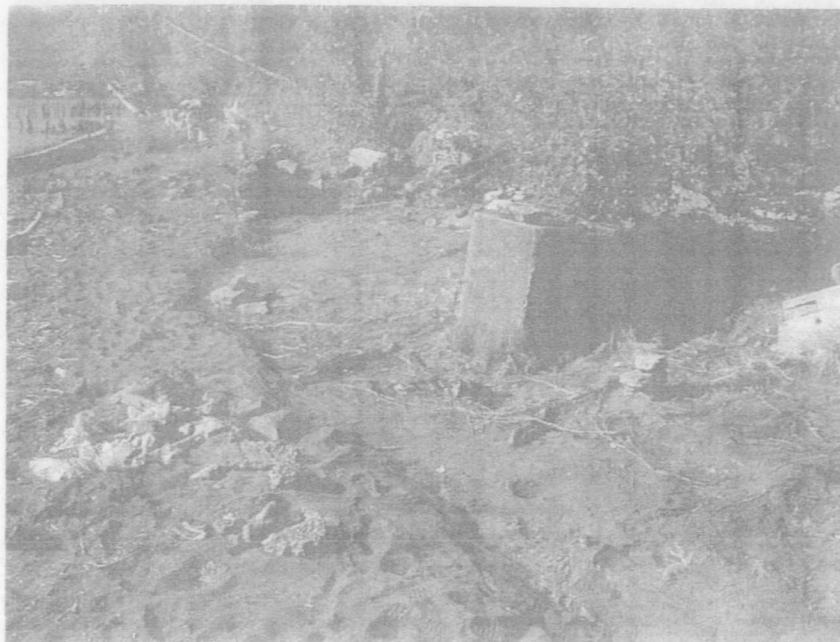


Photo No. 10

Photo Date: 10/20/01

Looking west. Completed beach removal.



Photo No. 11

Photo Date: 10/20/01

---

Looking north to west. Completed beach removal.



**Photo No. 12**

**Photo Date: 10/22/01**

---

Looking west from east end of bank excavation. Completed bank excavation.



**Photo No. 13**

**Photo Date: 10/22/01**

---

Looking west from east end of bank excavation. Backfilling bank excavation.





**Photo No. 14**

**Photo Date: 10/22/01**

Looking west from east end of bank excavation. Backfilled bank excavation.



**Photo No. 15**

**Photo Date: 10/22/01**

Looking east from west end of bank excavation. Backfilled bank excavation.



**Photo No. 16**

**Photo Date: 10/22/01**

---

Looking southwest. Covered stockpile after completing all excavation.



**Photo No. 17**

**Photo Date: 11/9/01**

---

Looking northeast. Loading truck for haul to offsite landfill. Stockpile in foreground.



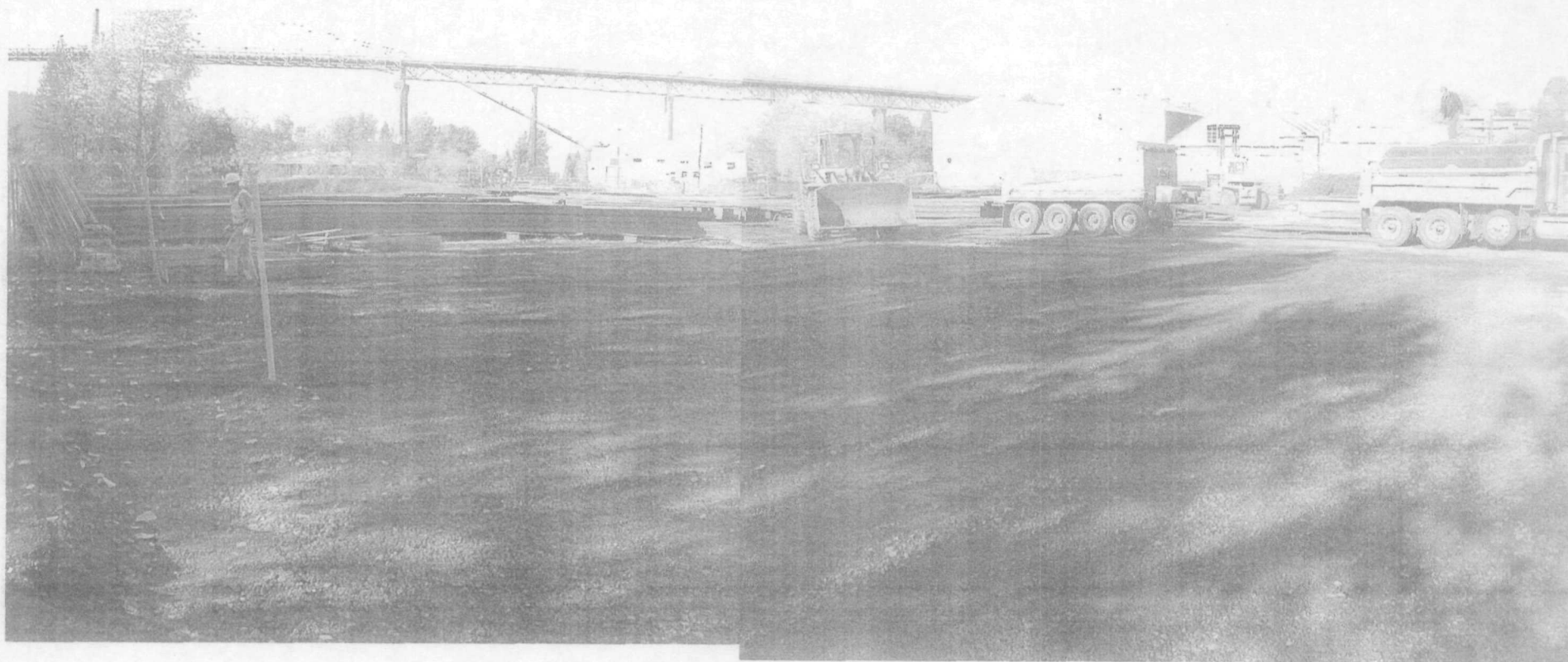


Photo No. 18

Photo Date: 11/9/01

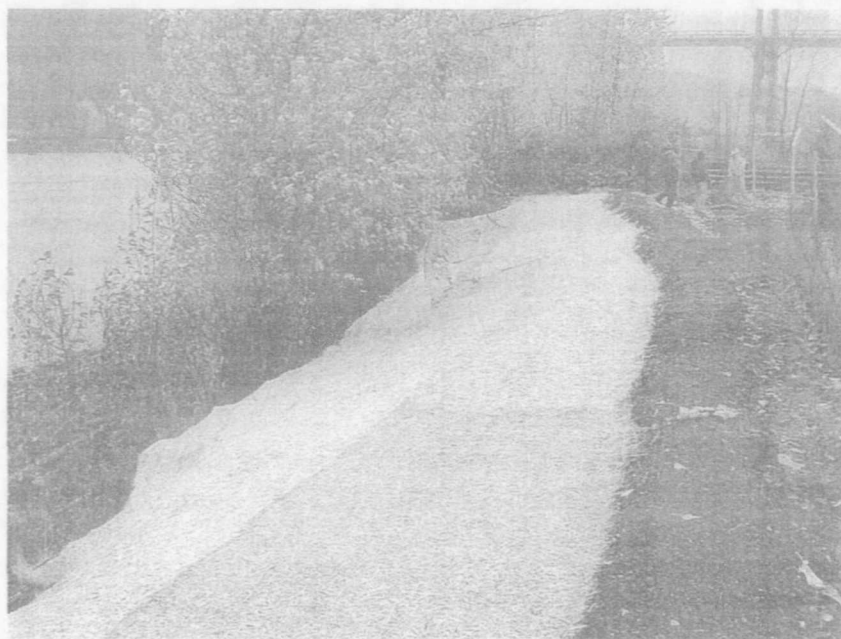
Looking west to north. Stockpile area after removal of stockpile and scraping of surface.



**Photo No. 19**

**Photo Date: 11/30/01**

Looking east. Placing erosion control mat after native grass reseeding.



**Photo No. 20**

**Photo Date: 11/30/01**

Looking west. Completed erosion control mat.

**APPENDIX B**

# **LANDFILL WEIGH SLIPS**

---

1016100

Hillsboro Landfill, Inc.  
 3205 SE Minter Bridge, Hillsboro 97123  
 Consumer Comments? We want to know!  
 PLEASE phone: 503-640-9427

TICKET: 163179  
 DATE: 11/09/2001  
 TIME: 09:06 - 09:18

CUSTOMER: 5151181 / SCHNITZER STEEL & INVESTMENTS P.O.:  
 GENERATOR: CRAWFORD / CRAWFORD STREEPROFILE #: 5947 GROSS: 94760 LBS  
 SOURCE: PDXM / Portland - Mult Co TARE: 39040 LBS  
 TRUCK: 147 BIN: LICENSE: NET: 55720 LBS  
 HAULER: CELORIE / CELORIE BROTHERS MANIFEST: STEWART CADE  
 COMMENT:

COMMODITY	UNIT	QNTY
PCSIN / CONTAM. SOILS	T	27.86

IN OPERATOR: Laura

OUT OPERATOR: Tracy

DRIVER: 

1016104

Hillsboro Landfill, Inc.  
 3205 SE Minter Bridge, Hillsboro 97123  
 Consumer Comments? We want to know!  
 PLEASE phone: 503-640-9427

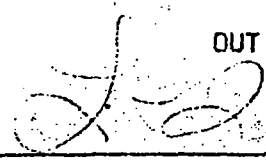
TICKET: 163185  
 DATE: 11/09/2001  
 TIME: 09:18 - 09:32

CUSTOMER: 5151181 / SCHNITZER STEEL & INVESTMENTS P.O.:  
 GENERATOR: CRAWFORD / CRAWFORD STREEPROFILE #: 5947 GROSS: 101740 LBS  
 SOURCE: PDXM / Portland - Mult Co TARE: 37720 LBS  
 TRUCK: 113 BIN: LICENSE: NET: 64020 LBS  
 HAULER: CELORIE / CELORIE BROTHERS MANIFEST: LONNY NOLAN  
 COMMENT:

COMMODITY	UNIT	QNTY
PCSIN / CONTAM. SOILS	T	32.01

IN OPERATOR: Laura

OUT OPERATOR: Jennifer

DRIVER: 

1008574

Hillsboro Landfill, Inc.  
 3205 SE Minter Bridge, Hillsboro 97123  
 Consumer Comments? We want to know!  
 PLEASE phone: 503-640-9427

TICKET: 163255  
 DATE: 11/09/2001  
 TIME: 11:17 - 11:17

CUSTOMER: 5151181 / SCHNITZER STEEL & INVESTMENTS P.O.:  
 GENERATOR: CRAWFORD / CRAWFORD STREEPROFILE #: 5947 GROSS: 77760 LBS  
 SOURCE: PDXM / Portland - Mult Co TARE: 35140 LBS Manual  
 TRUCK: JLR BIN: LICENSE: NET: 42620 LBS  
 HAULER: CELORIE / CELORIE BROTHERS MANIFEST: JOHN WILSON  
 COMMENT:

COMMODITY	UNIT	QNTY
PCSIN / CONTAM.SOILS -	T	21.31

IN OPERATOR: Jennifer

OUT OPERATOR: Jennifer

DRIVER: 

1015297

Hillsboro Landfill, Inc.  
 3205 SE Minter Bridge, Hillsboro 97123  
 Consumer Comments? We want to know!  
 PLEASE phone: 503-640-9427

TICKET: 163264  
 DATE: 11/09/2001  
 TIME: 11:27 - 11:27

CUSTOMER: 5151181 / SCHNITZER STEEL & INVESTMENTS P.O.:  
 GENERATOR: CRAWFORD / CRAWFORD STREEPROFILE #: 5947 GROSS: 95040 LBS Manual  
 SOURCE: PDXM / Portland - Mult Co TARE: 37720 LBS Manual  
 TRUCK: TMM BIN: LICENSE: NET: 57320 LBS  
 HAULER: CELORIE / CELORIE BROTHERS MANIFEST: LONNIE NOLAN  
 COMMENT:

COMMODITY	UNIT	QNTY
PCSIN / CONTAM.SOILS -	T	28.66

IN OPERATOR: Tracy

OUT OPERATOR: Tracy

DRIVER: 

1016140

Hillsboro Landfill, Inc.  
 3205 SE Minter Bridge, Hillsboro 97123  
 Consumer Comments? We want to know!  
 PLEASE phone: 503-640-9427

TICKET: 163396  
 DATE: 11/09/2001  
 TIME: 14:36 - 15:03

CUSTOMER: 5151181 / SCHNITZER STEEL & INVESTMENTS P.O.:  
 GENERATOR: CRAWFORD / CRAWFORD STREEPROFILE #: 5947 GROSS: 60760 LBS  
 SOURCE: PDXM / Portland - Mult Co TARE: 39780 LBS  
 TRUCK: D & R BIN: LICENSE: NET: 20980 LBS  
 HAULER: D&RDIETRIC / D & R DIETRICH TMANIFEST: DALE FEATHERS  
 COMMENT:

COMMODITY	UNIT	QNTY
PCSIN / CONTAM. SOILS	T	10.49

IN OPERATOR: Laura

OUT OPERATOR: Heather

DRIVER:

CUSTOMER: 5151181 / SCHNITZER STEEL & INVESTMENTS P.O.:  
 GENERATOR: CRAWFORD / CRAWFORD STREEPROFILE #: 5947 GROSS: 94460 LBS  
 SOURCE: PDXM / Portland - Mult Co TARE: 35140 LBS  
 TRUCK: 117 BIN: LICENSE: NET: 59320 LBS  
 HAULER: CELORIE / CELORIE BROTHERS MANIFEST: JOHN WILSON  
 COMMENT:

COMMODITY	UNIT	QNTY
PCSIN / CONTAM. SOILS	T	29.66

IN OPERATOR: Laura

OUT OPERATOR: Tracy

DRIVER:

1016102

APPENDIX C

# ANALYTICAL LABORATORY REPORTS

---





# *Environmental Services Laboratory, Inc.*

October 31, 2001 SW Upper Boones Ferry Road, Suite 270 • Portland, OR 97224 • (503) 670-8520

Mr. Ross Rieke  
Bridgewater Group  
4500 SW Kruse way  
Suite 110  
Lake Oswego, Oregon 97035  
TEL: (503) 675-5252  
FAX (503) 675-1960

RE: CRF001/Crawford St.

Order No.: 0110200

Dear Mr. Ross Rieke,

Environmental Services Laboratory received 26 samples on 10/22/01 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

HCID Soil (EPA 8015)  
ICP Metals (EPA 6010B)  
Mercury (EPA 7471A)  
NWTPH-Dx Soil (EPA 8015)  
PAH BY SIM, Soil (8270-SIM)  
PCBs in Soil or Solid Waste (EPA 8082A)  
PERCENT MOISTURE (SM 2540)

There were no analytical problems encountered, and all data met laboratory QC criteria, unless noted in a Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval of the Laboratory.

The following checked data sections are included in this report, and numbered to indicate total pages within each report section.

☒ Base Sample Report    ☒ Method Blank Report    ☒ Sample Duplicate Report  
☒ Matrix Spike/Matrix Spike Duplicate Report    ☒ Laboratory Control Spike/Spike  
Duplicate Report    ☒ Continuing Calibration Verification Report    ☒ Initial Calibration  
Verification Report

If you have any questions regarding these test results, please feel free to call.

Sincerely,

*Leslie Rush*  
Leslie Rush



October 31, 2001

Mr. Ross Rieke  
Bridgewater Group  
4500 SW Kruse way  
Suite 110  
Lake Oswego, Oregon 97035  
TEL: (503) 675-5252  
FAX (503) 675-1960

RE: CRF001/Crawford St.

Order No.: 0110200

Dear Mr. Ross Rieke,  
Project Manager

Technical Review

*Keith Hunter*

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-01A

**Client Sample ID:** B-1  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: smc
Oil	ND	111		mg/Kg-dry	1	10/22/01
Gasoline	ND	22.2		mg/Kg-dry	1	10/22/01
Diesel	ND	55.6		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	96.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: smc
% Moisture	10	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-01B

Client Sample ID: B-1  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.1		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	50.80	1		mg/Kg	1	10/26/01
Copper	396.00	1		mg/Kg	1	10/26/01
Lead	46.50	1		mg/Kg	1	10/26/01
Nickel	28.10	1		mg/Kg	1	10/26/01
Zinc	152.00	1		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50		µg/Kg	1	10/22/01
Aroclor 1221	ND	50		µg/Kg	1	10/22/01
Aroclor 1232	ND	50		µg/Kg	1	10/22/01
Aroclor 1242	ND	50		µg/Kg	1	10/22/01
Aroclor 1248	ND	50		µg/Kg	1	10/22/01
Aroclor 1254	ND	50		µg/Kg	1	10/22/01
Aroclor 1260	ND	50		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	70.8	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>EPA 8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50		µg/Kg	1	10/23/01
Acenaphthylene	ND	50		µg/Kg	1	10/23/01
Anthracene	100.0	50		µg/Kg	1	10/23/01
Benz(a)anthracene	80.0	50		µg/Kg	1	10/23/01
Benzo(a)pyrene	95.0	50		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	65.0	50		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	100.0	50		µg/Kg	1	10/23/01
Chrysene	120.0	50		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50		µg/Kg	1	10/23/01
Fluoranthene	215.0	50		µg/Kg	1	10/23/01
Fluorene	ND	50		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50		µg/Kg	1	10/23/01
Naphthalene	ND	50		µg/Kg	1	10/23/01
Phenanthrene	180.0	50		µg/Kg	1	10/23/01
Pyrene	205.0	50		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	85.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	87.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	87.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-02A

**Client Sample ID:** B-2  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				<b>Analyst: smc</b>
Oil	ND	111		mg/Kg-dry	1	10/22/01
Gasoline	ND	22.2		mg/Kg-dry	1	10/22/01
Diesel	ND	55.8		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	107.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				<b>Analyst: smc</b>
% Moisture	10	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-02B

Client Sample ID: B-2  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>						
		<b>EPA 7471A</b>				Analyst: mal
Mercury	0.21	0.1		mg/Kg	1	10/26/01
<b>ICP METALS</b>						
		<b>EPA 6010B</b>				Analyst: mal
Chromium	75.90	1		mg/Kg	1	10/26/01
Copper	558.00	1		mg/Kg	1	10/26/01
Lead	1890.00	1		mg/Kg	1	10/26/01
Nickel	129.00	1		mg/Kg	1	10/26/01
Zinc	262.00	1		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>						
		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50		µg/Kg	1	10/22/01
Aroclor 1221	ND	50		µg/Kg	1	10/22/01
Aroclor 1232	ND	50		µg/Kg	1	10/22/01
Aroclor 1242	ND	50		µg/Kg	1	10/22/01
Aroclor 1248	ND	50		µg/Kg	1	10/22/01
Aroclor 1254	ND	50		µg/Kg	1	10/22/01
Aroclor 1260	ND	50		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	78.4	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>						
		<b>EPA 8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50		µg/Kg	1	10/23/01
Acenaphthylene	ND	50		µg/Kg	1	10/23/01
Anthracene	50.0	50		µg/Kg	1	10/23/01
Benz(a)anthracene	70.0	50		µg/Kg	1	10/23/01
Benzo(a)pyrene	95.0	50		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	60.0	50		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	95.0	50		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	90.0	50		µg/Kg	1	10/23/01
Chrysene	110.0	50		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50		µg/Kg	1	10/23/01
Fluoranthene	165.0	50		µg/Kg	1	10/23/01
Fluorene	ND	50		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	55.0	50		µg/Kg	1	10/23/01
Naphthalene	ND	50		µg/Kg	1	10/23/01
Phenanthrene	90.0	50		µg/Kg	1	10/23/01
Pyrene	170.0	50		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	92.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	94.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	95.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-03A

**Client Sample ID:** B-3  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				<b>Analyst: smc</b>
Oil	ND	125		mg/Kg-dry	1	10/22/01
Gasoline	ND	25		mg/Kg-dry	1	10/22/01
Diesel	ND	62.5		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	99.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				<b>Analyst: smc</b>
% Moisture	20	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 02-Nov-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-03B

Client Sample ID: B-3  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b> EPA 7471A Analyst: mal						
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b> EPA 6010B Analyst: mal						
Chromium	99.3	1.00		mg/Kg	1	10/26/01
Copper	764	1.00		mg/Kg	1	10/26/01
Lead	240	1.00		mg/Kg	1	10/26/01
Nickel	44.4	1.00		mg/Kg	1	10/26/01
Zinc	282	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b> EPA 8082A Analyst: mrs						
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	83.6	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b> 8270-SIM Analyst: mrs						
Acenaphthene	105	50.0		µg/Kg	1	10/23/01
Acenaphthylene	55.0	50.0		µg/Kg	1	10/23/01
Anthracene	575	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	405	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	495	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	315	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	295	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	435	50.0		µg/Kg	1	10/23/01
Chrysene	480	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	90.0	50.0		µg/Kg	1	10/23/01
Fluoranthene	1,060	50.0		µg/Kg	1	10/23/01
Fluorene	200	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	235	50.0		µg/Kg	1	10/23/01
Naphthalene	140	50.0		µg/Kg	1	10/23/01
Phenanthrene	1,040	50.0		µg/Kg	1	10/23/01
Pyrene	1,010	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	102.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	105.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	102.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-04A

**Client Sample ID:** B-4  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: smc
Oil	ND	112		mg/Kg-dry	1	10/22/01
Gasoline	ND	22.5		mg/Kg-dry	1	10/22/01
Diesel	ND	56.2		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	79.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: smc
% Moisture	11	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



# Environmental Services Laboratory

Date: 02-Nov-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-04B

**Client Sample ID:** B-4  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				<b>Analyst: mal</b>
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				<b>Analyst: mal</b>
Chromium	139	1.00		mg/Kg	1	10/26/01
Copper	1,390	2.00		mg/Kg	1	10/26/01
Lead	265	1.00		mg/Kg	1	10/26/01
Nickel	72.8	1.00		mg/Kg	1	10/26/01
Zinc	302	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				<b>Analyst: mrs</b>
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	85.4	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				<b>Analyst: mrs</b>
Acenaphthene	95.0	50.0		µg/Kg	1	10/23/01
Acenaphthylene	55.0	50.0		µg/Kg	1	10/23/01
Anthracene	445	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	435	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	525	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	370	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	345	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	485	50.0		µg/Kg	1	10/23/01
Chrysene	545	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	100	50.0		µg/Kg	1	10/23/01
Fluoranthene	1,040	50.0		µg/Kg	1	10/23/01
Fluorene	170	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	275	50.0		µg/Kg	1	10/23/01
Naphthalene	85.0	50.0		µg/Kg	1	10/23/01
Phenanthrene	925	50.0		µg/Kg	1	10/23/01
Pyrene	1,000	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	99.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	99.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	98.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-05A

Client Sample ID: B-5  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: smc
Oil	ND	110		mg/Kg-dry	1	10/22/01
Gasoline	ND	22		mg/Kg-dry	1	10/22/01
Diesel	ND	54.9		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	99.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: smc
% Moisture	9	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 02-Nov-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-05B

Client Sample ID: B-5  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	144	1.00		mg/Kg	1	10/26/01
Copper	1,380	2.00		mg/Kg	1	10/26/01
Lead	45.6	1.00		mg/Kg	1	10/26/01
Nickel	104	1.00		mg/Kg	1	10/26/01
Zinc	246	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	71.0	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	75.0	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	225	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	240	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	280	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	205	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	245	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	275	50.0		µg/Kg	1	10/23/01
Chrysene	305	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	65.0	50.0		µg/Kg	1	10/23/01
Fluoranthene	690	50.0		µg/Kg	1	10/23/01
Fluorene	110	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	190	50.0		µg/Kg	1	10/23/01
Naphthalene	55.0	50.0		µg/Kg	1	10/23/01
Phenanthrene	640	50.0		µg/Kg	1	10/23/01
Pyrene	585	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	87.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	85.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	87.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-06A

Client Sample ID: B-6  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HCID SOIL						Analyst: smc
		NW-TPH				
Oil	ND	109		mg/Kg-dry	1	10/22/01
Gasoline	ND	21.7		mg/Kg-dry	1	10/22/01
Diesel	ND	54.3		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	98.0	50-150		%REC	1	10/22/01
PERCENT MOISTURE		SM2540				Analyst: smc
% Moisture	8	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-06B

**Client Sample ID:** B-6  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	79.2	1.00		mg/Kg	1	10/26/01
Copper	1,130	2.00		mg/Kg	1	10/26/01
Lead	36.3	1.00		mg/Kg	1	10/26/01
Nickel	54.0	1.00		mg/Kg	1	10/26/01
Zinc	183	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	92.4	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	130	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	115	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	175	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	115	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	165	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	155	50.0		µg/Kg	1	10/23/01
Chrysene	165	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	265	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	105	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	205	50.0		µg/Kg	1	10/23/01
Pyrene	280	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	112.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	116.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	110.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-07A

Client Sample ID: B-7  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>						
NW-TPH						
Analyst: smc						
Oil	ND	118		mg/Kg-dry	1	10/22/01
Gasoline	ND	23.5		mg/Kg-dry	1	10/22/01
Diesel	ND	58.8		mg/Kg-dry	1	10/22/01
Unidentified Hydrocarbon (Oil range)	DETECT	118		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	106.0	50-150		%REC	1	10/22/01
<b>NWTPH-DX SOIL</b>						
NW TPH-DX						
Analyst: smc						
Diesel	53.4	23.5	AC	mg/Kg-dry	1	10/26/01
Oil	179.0	58.8	AF	mg/Kg-dry	1	10/26/01
Surr: O-Terphenyl	98.0	50-150		%REC	1	10/26/01
<b>PERCENT MOISTURE</b>						
SM2540						
Analyst: smc						
% Moisture	15	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 02-Nov-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-07B

Client Sample ID: B-7  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b> EPA 7471A Analyst: mal						
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b> EPA 6010B Analyst: mal						
Chromium	33.2	1.00		mg/Kg	1	10/26/01
Copper	292	1.00		mg/Kg	1	10/26/01
Lead	30.6	1.00		mg/Kg	1	10/26/01
Nickel	24.5	1.00		mg/Kg	1	10/26/01
Zinc	132	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b> EPA 8082A Analyst: mrs						
Aroclor 1016	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	5	10/22/01
Surr: Decachlorobiphenyl	145.0	70-130	S, MI	%REC	5	10/22/01
<b>PAH BY SIM, SOIL</b> 8270-SIM Analyst: mrs						
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	50	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	80.0	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	135	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	90.0	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	165	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	105	50.0		µg/Kg	1	10/23/01
Chrysene	120	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	160	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	100	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	80.0	50.0		µg/Kg	1	10/23/01
Pyrene	185	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	85.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	87.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	84.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-08A

**Client Sample ID:** P-1  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: smc
Oil	ND	103		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.6		mg/Kg-dry	1	10/22/01
Diesel	ND	51.5		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	57.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: smc
% Moisture	3	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-08B

**Client Sample ID:** P-1  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	104	1.00		mg/Kg	1	10/26/01
Copper	745	1.00		mg/Kg	1	10/26/01
Lead	20.5	1.00		mg/Kg	1	10/26/01
Nickel	73.1	1.00		mg/Kg	1	10/26/01
Zinc	107	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	76.2	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	ND	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	ND	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	ND	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Chrysene	ND	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	65.0	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	ND	50.0		µg/Kg	1	10/23/01
Pyrene	70.0	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	105.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	119.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	99.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-09A

**Client Sample ID:** P-2  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<hr/>						
<b>HCID SOIL</b>		<b>NW-TPH</b>				<b>Analyst: smc</b>
Oil	ND	104		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.8		mg/Kg-dry	1	10/22/01
Diesel	ND	52.1		mg/Kg-dry	1	10/22/01
Surr. O-Terphenyl	103.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				<b>Analyst: smc</b>
% Moisture	4	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 02-Nov-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-09B

**Client Sample ID:** P-2  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	92.7	1.00		mg/Kg	1	10/26/01
Copper	760	1.00		mg/Kg	1	10/26/01
Lead	48.3	1.00		mg/Kg	1	10/26/01
Nickel	59.2	1.00		mg/Kg	1	10/26/01
Zinc	157	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	78.2	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	130	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	220	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	230	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	180	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	180	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	215	50.0		µg/Kg	1	10/23/01
Chrysene	285	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	605	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	130	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	460	50.0		µg/Kg	1	10/23/01
Pyrene	515	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	114.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	117.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	105.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-10A

Client Sample ID: P-3  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: smc
Oil	ND	109		mg/Kg-dry	1	10/22/01
Gasoline	ND	21.7		mg/Kg-dry	1	10/22/01
Diesel	ND	54.3		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	111.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: smc
% Moisture	8	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**Environmental Services Laboratory**

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-10B

**Client Sample ID:** P-3  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	137	1.00		mg/Kg	1	10/26/01
Copper	1,260	2.00		mg/Kg	1	10/26/01
Lead	404	1.00		mg/Kg	1	10/26/01
Nickel	75.9	1.00		mg/Kg	1	10/26/01
Zinc	279	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	82.0	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	205	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	190	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	210	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	155	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	230	50.0		µg/Kg	1	10/23/01
Chrysene	260	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	470	50.0		µg/Kg	1	10/23/01
Fluorene	50	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	385	50.0		µg/Kg	1	10/23/01
Pyrene	540	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	100.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	113.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	84.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-11A

**Client Sample ID:** P-4  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: smc
Oil	ND	104		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.8		mg/Kg-dry	1	10/22/01
Diesel	ND	52.1		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	98.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: smc
% Moisture	4	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-11B

Client Sample ID: P-4  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b> EPA 7471A Analyst: mal						
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b> EPA 6010B Analyst: mal						
Chromium	95.5	1.00		mg/Kg	1	10/26/01
Copper	752	1.00		mg/Kg	1	10/26/01
Lead	14.4	1.00		mg/Kg	1	10/26/01
Nickel	34.6	1.00		mg/Kg	1	10/26/01
Zinc	94.7	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b> EPA 8082A Analyst: mrs						
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	79.8	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b> 8270-SIM Analyst: mrs						
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	ND	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	ND	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	ND	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Chrysene	ND	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	ND	50.0		µg/Kg	1	10/23/01
Pyrene	ND	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	113.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	120.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	84.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-12A

**Client Sample ID:** P-5  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: smc
Oil	ND	109		mg/Kg-dry	1	10/22/01
Gasoline	ND	21.7		mg/Kg-dry	1	10/22/01
Diesel	ND	54.3		mg/Kg-dry	1	10/22/01
Unidentified Hydrocarbon (Oil range)	DETECT	109		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	118.0	50-150		%REC	1	10/22/01
<b>NWTPH-DX SOIL</b>		<b>NW TPH-DX</b>				Analyst: smc
Diesel	ND	21.7		mg/Kg-dry	1	10/26/01
Oil	87.0	54.3		mg/Kg-dry	1	10/26/01
Surr: O-Terphenyl	81.0	50-150		%REC	1	10/26/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: smc
% Moisture	8	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD.outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-12B

Client Sample ID: P-5  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	61.1	1.00		mg/Kg	1	10/26/01
Copper	581	1.00		mg/Kg	1	10/26/01
Lead	50.7	1.00		mg/Kg	1	10/26/01
Nickel	26.9	1.00		mg/Kg	1	10/26/01
Zinc	139	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	87.2	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	180	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	85.0	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	80.0	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	55.0	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	90.0	50.0		µg/Kg	1	10/23/01
Chrysene	115	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	250	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	250	50.0		µg/Kg	1	10/23/01
Pyrene	250	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	97.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	101.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	83.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-13A

**Client Sample ID:** P-6  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: smc
Oil	ND	102		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.4		mg/Kg-dry	1	10/22/01
Diesel	ND	51		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	101.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: smc
% Moisture	2	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-13B

Client Sample ID: P-6  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b> EPA 7471A Analyst: mal						
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b> EPA 6010B Analyst: mal						
Chromium	111	1.00		mg/Kg	1	10/26/01
Copper	926	1.00		mg/Kg	1	10/26/01
Lead	20.5	1.00		mg/Kg	1	10/26/01
Nickel	50.2	1.00		mg/Kg	1	10/26/01
Zinc	102	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b> EPA 8082A Analyst: mrs						
Aroclor 1016	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	5	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	5	10/22/01
Surr: Decachlorobiphenyl	76.8	70-130		%REC	5	10/22/01
<b>PAH BY SIM, SOIL</b> 8270-SIM Analyst: mrs						
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	ND	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	ND	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	ND	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Chrysene	ND	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	70.0	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	50	50.0		µg/Kg	1	10/23/01
Pyrene	70.0	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	99.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	109.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	89.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-14A

**Client Sample ID:** P-7  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				<b>Analyst: smc</b>
Oil	ND	101		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.2		mg/Kg-dry	1	10/22/01
Diesel	ND	50.5		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	103.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				<b>Analyst: smc</b>
% Moisture	1	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 02-Nov-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-14B

Client Sample ID: P-7  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	89.6	1.00		mg/Kg	1	10/26/01
Copper	784	1.00		mg/Kg	1	10/26/01
Lead	18.5	1.00		mg/Kg	1	10/26/01
Nickel	43.7	1.00		mg/Kg	1	10/26/01
Zinc	111	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	86.2	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	ND	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	ND	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	ND	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Chrysene	ND	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	50	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	50	50.0		µg/Kg	1	10/23/01
Pyrene	55.0	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	93.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	78.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	110.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-15A

Client Sample ID: P-8  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HCID SOIL		NW-TPH				Analyst: smc
Oil	ND	101		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.2		mg/Kg-dry	1	10/22/01
Diesel	ND	50.5		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	96.0	50-150		%REC	1	10/22/01
PERCENT MOISTURE		SM2540				Analyst: smc
% Moisture	1	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-15B

**Client Sample ID:** P-8  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				<b>Analyst: mal</b>
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				<b>Analyst: mal</b>
Chromium	98.6	1.00		mg/Kg	1	10/26/01
Copper	897	1.00		mg/Kg	1	10/26/01
Lead	11.6	1.00		mg/Kg	1	10/26/01
Nickel	33.4	1.00		mg/Kg	1	10/26/01
Zinc	98.6	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				<b>Analyst: mrs</b>
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	79.6	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				<b>Analyst: mrs</b>
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	ND	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	ND	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	ND	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Chrysene	50	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	110	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	90.0	50.0		µg/Kg	1	10/23/01
Pyrene	115	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	95.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	110.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	119.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-16A

**Client Sample ID:** P-9  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				Analyst: <b>smc</b>
Oil	ND	108		mg/Kg-dry	1	10/22/01
Gasoline	ND	21.5		mg/Kg-dry	1	10/22/01
Diesel	ND	53.8		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	82.0	50-150		%REC	1	10/22/01
<b>NWTPH-DX SOIL</b>		<b>NW TPH-DX</b>				Analyst: <b>smc</b>
Diesel	ND	21.5		mg/Kg-dry	1	10/26/01
Oil	ND	53.8		mg/Kg-dry	1	10/26/01
Surr: O-Terphenyl	89.0	50-150		%REC	1	10/26/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				Analyst: <b>smc</b>
% Moisture	7	0.		wt%	1	10/22/01

**Qualifiers:**  
ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-16B

**Client Sample ID:** P-9  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	84.2	1.00		mg/Kg	1	10/26/01
Copper	846	1.00		mg/Kg	1	10/26/01
Lead	15.4	1.00		mg/Kg	1	10/26/01
Nickel	34.1	1.00		mg/Kg	1	10/26/01
Zinc	103	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	80.2	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	ND	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	ND	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	ND	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Chrysene	ND	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	50	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	ND	50.0		µg/Kg	1	10/23/01
Pyrene	60.0	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	98.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	119.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	84.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-17A

Client Sample ID: P-10  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HCID SOIL		NW-TPH				Analyst: smc
Oil	ND	102		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.4		mg/Kg-dry	1	10/22/01
Diesel	ND	51		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	85.0	50-150		%REC	1	10/22/01
PERCENT MOISTURE		SM2540				Analyst: smc
% Moisture	2	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-17B

**Client Sample ID:** P-10  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				<b>Analyst: mal</b>
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				<b>Analyst: mal</b>
Chromium	111	1.00		mg/Kg	1	10/26/01
Copper	801	1.00		mg/Kg	1	10/26/01
Lead	14.3	1.00		mg/Kg	1	10/26/01
Nickel	58.3	1.00		mg/Kg	1	10/26/01
Zinc	101	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				<b>Analyst: mrs</b>
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	74.6	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				<b>Analyst: mrs</b>
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	ND	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	ND	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	ND	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Chrysene	ND	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	ND	50.0		µg/Kg	1	10/23/01
Pyrene	ND	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	104.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	120.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	89.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-18A

**Client Sample ID:** P-11  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				<b>Analyst: smc</b>
Oil	ND	106		mg/Kg-dry	1	10/22/01
Gasoline	ND	21.3		mg/Kg-dry	1	10/22/01
Diesel	ND	53.2		mg/Kg-dry	1	10/22/01
Unidentified Hydrocarbon (Oil range)	DETECT	106		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	109.0	50-150		%REC	1	10/22/01
<b>NWTPH-DX SOIL</b>		<b>NW TPH-DX</b>				<b>Analyst: smc</b>
Diesel	ND	21.3		mg/Kg-dry	1	10/26/01
Oil	56.9	53.2		mg/Kg-dry	1	10/26/01
Surr: O-Terphenyl	92.0	50-150		%REC	1	10/26/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				<b>Analyst: smc</b>
% Moisture	6	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-19A

Client Sample ID: P-15  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HCID SOIL		EPA 8015				Analyst: smc
Oil	ND	102		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.4		mg/Kg-dry	1	10/22/01
Diesel	ND	51.0		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	110.0	50-150		%REC	1	10/22/01
PERCENT MOISTURE		SM 2540				Analyst: smc
% Moisture	2.00	0		wt%	1	10/22/01

## Qualifiers:

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-19B

**Client Sample ID:** P-15  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				<b>Analyst: mal</b>
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				<b>Analyst: mal</b>
Chromium	120	1.00		mg/Kg	1	10/26/01
Copper	1,240	2.00		mg/Kg	1	10/26/01
Lead	26.1	1.00		mg/Kg	1	10/26/01
Nickel	77.8	1.00		mg/Kg	1	10/26/01
Zinc	146	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				<b>Analyst: mrs</b>
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	96.4	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				<b>Analyst: mrs</b>
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	200	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	125	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	125	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	90.0	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	70.0	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	125	50.0		µg/Kg	1	10/23/01
Chrysene	160	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	335	50.0		µg/Kg	1	10/23/01
Fluorene	60.0	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	65.0	50.0		µg/Kg	1	10/23/01
Naphthalene	60.0	50.0		µg/Kg	1	10/23/01
Phenanthrene	310	50.0		µg/Kg	1	10/23/01
Pyrene	330	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	108.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	114.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	103.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-20A

Client Sample ID: P-17  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HCID SOIL		NW-TPH				Analyst: smc
Oil	ND	101		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.2		mg/Kg-dry	1	10/22/01
Diesel	ND	50.5		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	98.0	50-150		%REC	1	10/22/01
PERCENT MOISTURE		SM2540				Analyst: smc
% Moisture	1	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-21A

Client Sample ID: P-18  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HCID SOIL						Analyst: smc
		NW-TPH				
Oil	ND	108		mg/Kg-dry	1	10/22/01
Gasoline	ND	21.5		mg/Kg-dry	1	10/22/01
Diesel	ND	53.8		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	96.0	50-150		%REC	1	10/22/01
PERCENT MOISTURE						Analyst: smc
		SM2540				
% Moisture	7	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-21B

Client Sample ID: P-18  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.1		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	101.00	1		mg/Kg	1	10/26/01
Copper	1200.00	2		mg/Kg	1	10/26/01
Lead	3130.00	1		mg/Kg	1	10/26/01
Nickel	285.00	1		mg/Kg	1	10/26/01
Zinc	314.00	1		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50		µg/Kg	1	10/22/01
Aroclor 1221	ND	50		µg/Kg	1	10/22/01
Aroclor 1232	ND	50		µg/Kg	1	10/22/01
Aroclor 1242	ND	50		µg/Kg	1	10/22/01
Aroclor 1248	ND	50		µg/Kg	1	10/22/01
Aroclor 1254	ND	50		µg/Kg	1	10/22/01
Aroclor 1260	ND	50		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	84.0	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>EPA 8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50		µg/Kg	1	10/23/01
Acenaphthylene	ND	50		µg/Kg	1	10/23/01
Anthracene	50.0	50		µg/Kg	1	10/23/01
Benz(a)anthracene	55.0	50		µg/Kg	1	10/23/01
Benzo(a)pyrene	65.0	50		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	50.0	50		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	85.0	50		µg/Kg	1	10/23/01
Chrysene	75.0	50		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50		µg/Kg	1	10/23/01
Fluoranthene	135.0	50		µg/Kg	1	10/23/01
Fluorene	ND	50		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50		µg/Kg	1	10/23/01
Naphthalene	ND	50		µg/Kg	1	10/23/01
Phenanthrene	85.0	50		µg/Kg	1	10/23/01
Pyrene	160.0	50		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	81.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	97.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	73.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-22A

Client Sample ID: P-19  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>						
<b>NW-TPH</b>						
Analyst: smc						
Oil	ND	103		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.6		mg/Kg-dry	1	10/22/01
Diesel	ND	51.5		mg/Kg-dry	1	10/22/01
Unidentified Hydrocarbon (Oil range)	DETECT	103		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	117.0	50-150		%REC	1	10/22/01
<b>NWTPH-DX SOIL</b>						
<b>NW TPH-DX</b>						
Analyst: smc						
Diesel	30.1	20.6	AC	mg/Kg-dry	1	10/26/01
Oil	68.6	51.5	AF	mg/Kg-dry	1	10/26/01
Surr: O-Terphenyl	87.0	50-150		%REC	1	10/26/01
<b>PERCENT MOISTURE</b>						
<b>SM2540</b>						
Analyst: smc						
% Moisture	3	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**Environmental Services Laboratory**

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-22B

**Client Sample ID:** P-19  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.1		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	179.00	1		mg/Kg	1	10/26/01
Copper	1890.00	2		mg/Kg	1	10/26/01
Lead	656.00	1		mg/Kg	1	10/26/01
Nickel	140.00	1		mg/Kg	1	10/26/01
Zinc	312.00	1		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50		µg/Kg	1	10/22/01
Aroclor 1221	ND	50		µg/Kg	1	10/22/01
Aroclor 1232	ND	50		µg/Kg	1	10/22/01
Aroclor 1242	ND	50		µg/Kg	1	10/22/01
Aroclor 1248	ND	50		µg/Kg	1	10/22/01
Aroclor 1254	ND	50		µg/Kg	1	10/22/01
Aroclor 1260	ND	50		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	85.8	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>EPA 8270-SIM</b>				Analyst: mrs
Acenaphthene	75.0	50		µg/Kg	1	10/23/01
Acenaphthylene	110.0	50		µg/Kg	1	10/23/01
Anthracene	520.0	50		µg/Kg	1	10/23/01
Benz(a)anthracene	640.0	50		µg/Kg	1	10/23/01
Benzo(a)pyrene	850.0	50		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	565.0	50		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	550.0	50		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	565.0	50		µg/Kg	1	10/23/01
Chrysene	820.0	50		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	115.0	50		µg/Kg	1	10/23/01
Fluoranthene	1500.0	50		µg/Kg	1	10/23/01
Fluorene	140.0	50		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	475.0	50		µg/Kg	1	10/23/01
Naphthalene	95.0	50		µg/Kg	1	10/23/01
Phenanthrene	875.0	50		µg/Kg	1	10/23/01
Pyrene	1810.0	50		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	80.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	80.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	80.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-23A

Client Sample ID: P-20  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HCID SOIL		NW-TPH				Analyst: smc
Oil	ND	108		mg/Kg-dry	1	10/22/01
Gasoline	ND	21.5		mg/Kg-dry	1	10/22/01
Diesel	ND	53.8		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	99.0	50-150		%REC	1	10/22/01
PERCENT MOISTURE		SM2540				Analyst: smc
% Moisture	7	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-23B

Client Sample ID: P-20  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.1		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	142.00	1		mg/Kg	1	10/26/01
Copper	1330.00	2		mg/Kg	1	10/26/01
Lead	434.00	1		mg/Kg	1	10/26/01
Nickel	50.80	1		mg/Kg	1	10/26/01
Zinc	269.00	1		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50		µg/Kg	1	10/22/01
Aroclor 1221	ND	50		µg/Kg	1	10/22/01
Aroclor 1232	ND	50		µg/Kg	1	10/22/01
Aroclor 1242	ND	50		µg/Kg	1	10/22/01
Aroclor 1248	ND	50		µg/Kg	1	10/22/01
Aroclor 1254	ND	50		µg/Kg	1	10/22/01
Aroclor 1260	ND	50		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	86.4	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>EPA 8270-SIM</b>				Analyst: mrs
Acenaphthene	65.0	50		µg/Kg	1	10/23/01
Acenaphthylene	ND	50		µg/Kg	1	10/23/01
Anthracene	160.0	50		µg/Kg	1	10/23/01
Benz(a)anthracene	195.0	50		µg/Kg	1	10/23/01
Benzo(a)pyrene	275.0	50		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	210.0	50		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	275.0	50		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	285.0	50		µg/Kg	1	10/23/01
Chrysene	245.0	50		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50		µg/Kg	1	10/23/01
Fluoranthene	490.0	50		µg/Kg	1	10/23/01
Fluorene	90.0	50		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	185.0	50		µg/Kg	1	10/23/01
Naphthalene	ND	50		µg/Kg	1	10/23/01
Phenanthrene	475.0	50		µg/Kg	1	10/23/01
Pyrene	570.0	50		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	98.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	115.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	84.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-24A

Client Sample ID: P-7D  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
HCID SOIL		NW-TPH				Analyst: smc
Oil	ND	102		mg/Kg-dry	1	10/22/01
Gasoline	ND	20.4		mg/Kg-dry	1	10/22/01
Diesel	ND	51		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	94.0	50-150		%REC	1	10/22/01
PERCENT MOISTURE		SM2540				Analyst: smc
% Moisture	2	0.		wt%	1	10/22/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 02-Nov-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-24B

Client Sample ID: P-7D  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				Analyst: mal
Mercury	ND	0.100		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Chromium	86.5	1.00		mg/Kg	1	10/26/01
Copper	718	2.00		mg/Kg	1	10/26/01
Lead	13.9	1.00		mg/Kg	1	10/26/01
Nickel	34.9	1.00		mg/Kg	1	10/26/01
Zinc	106	1.00		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				Analyst: mrs
Aroclor 1016	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1221	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1232	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1242	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1248	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1254	ND	50.0		µg/Kg	1	10/22/01
Aroclor 1260	ND	50.0		µg/Kg	1	10/22/01
Surr: Decachlorobiphenyl	81.6	70-130		%REC	1	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>8270-SIM</b>				Analyst: mrs
Acenaphthene	ND	50.0		µg/Kg	1	10/23/01
Acenaphthylene	ND	50.0		µg/Kg	1	10/23/01
Anthracene	ND	50.0		µg/Kg	1	10/23/01
Benz(a)anthracene	ND	50.0		µg/Kg	1	10/23/01
Benzo(a)pyrene	ND	50.0		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	ND	50.0		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	ND	50.0		µg/Kg	1	10/23/01
Chrysene	ND	50.0		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50.0		µg/Kg	1	10/23/01
Fluoranthene	65.0	50.0		µg/Kg	1	10/23/01
Fluorene	ND	50.0		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	ND	50.0		µg/Kg	1	10/23/01
Naphthalene	ND	50.0		µg/Kg	1	10/23/01
Phenanthrene	50	50.0		µg/Kg	1	10/23/01
Pyrene	80.0	50.0		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	91.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	117.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	78.0	23-120		%REC	1	10/23/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-25A

**Client Sample ID:** B-3D  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>HCID SOIL</b>		<b>NW-TPH</b>				<b>Analyst: smc</b>
Oil	ND	116		mg/Kg-dry	1	10/22/01
Gasoline	ND	23.3		mg/Kg-dry	1	10/22/01
Diesel	ND	58.1		mg/Kg-dry	1	10/22/01
Surr: O-Terphenyl	123.0	50-150		%REC	1	10/22/01
<b>PERCENT MOISTURE</b>		<b>SM2540</b>				<b>Analyst: smc</b>
% Moisture	14	0.		wt%	1	10/22/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

**Environmental Services Laboratory**

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0110200  
**Project:** CRF001/Crawford St.  
**Lab ID:** 0110200-25B

**Client Sample ID:** B-3D  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>MERCURY</b>		<b>EPA 7471A</b>				<b>Analyst: mal</b>
Mercury	0.12	0.1		mg/Kg	1	10/26/01
<b>ICP METALS</b>		<b>EPA 6010B</b>				<b>Analyst: mal</b>
Chromium	100.00	1		mg/Kg	1	10/26/01
Copper	968.00	1		mg/Kg	1	10/26/01
Lead	84.60	1		mg/Kg	1	10/26/01
Nickel	67.30	1		mg/Kg	1	10/26/01
Zinc	384.00	1		mg/Kg	1	10/26/01
<b>PCBS IN SOIL OR SOLID WASTE</b>		<b>EPA 8082A</b>				<b>Analyst: mrs</b>
Aroclor 1016	ND	50		µg/Kg	5	10/22/01
Aroclor 1221	ND	50		µg/Kg	5	10/22/01
Aroclor 1232	ND	50		µg/Kg	5	10/22/01
Aroclor 1242	ND	50		µg/Kg	5	10/22/01
Aroclor 1248	ND	50		µg/Kg	5	10/22/01
Aroclor 1254	ND	50		µg/Kg	5	10/22/01
Aroclor 1260	ND	50		µg/Kg	5	10/22/01
Surr: Decachlorobiphenyl	163.0	70-130	S, MI	%REC	5	10/22/01
<b>PAH BY SIM, SOIL</b>		<b>EPA 8270-SIM</b>				<b>Analyst: mrs</b>
Acenaphthene	105.0	50		µg/Kg	1	10/23/01
Acenaphthylene	65.0	50		µg/Kg	1	10/23/01
Anthracene	510.0	50		µg/Kg	1	10/23/01
Benz(a)anthracene	500.0	50		µg/Kg	1	10/23/01
Benzo(a)pyrene	585.0	50		µg/Kg	1	10/23/01
Benzo(b)fluoranthene	385.0	50		µg/Kg	1	10/23/01
Benzo(g,h,i)perylene	470.0	50		µg/Kg	1	10/23/01
Benzo(k)fluoranthene	645.0	50		µg/Kg	1	10/23/01
Chrysene	595.0	50		µg/Kg	1	10/23/01
Dibenz(a,h)anthracene	ND	50		µg/Kg	1	10/23/01
Fluoranthene	1210.0	50		µg/Kg	1	10/23/01
Fluorene	170.0	50		µg/Kg	1	10/23/01
Indeno(1,2,3-cd)pyrene	350.0	50		µg/Kg	1	10/23/01
Naphthalene	90.0	50		µg/Kg	1	10/23/01
Phenanthrene	1040.0	50		µg/Kg	1	10/23/01
Pyrene	1540.0	50		µg/Kg	1	10/23/01
Surr: 2-Fluorobiphenyl	93.0	30-115		%REC	1	10/23/01
Surr: 4-Terphenyl-d14	118.0	18-137		%REC	1	10/23/01
Surr: Nitrobenzene-d5	87.0	23-120		%REC	1	10/23/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Lab Order: 0110200  
Project: CRF001/Crawford St.  
Lab ID: 0110200-26A

Client Sample ID: SP-1  
Tag Number:  
Collection Date: 10/20/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS		EPA 6010B				Analyst: mal
Lead, TCLP	4.73	0.05		mg/L	1	10/29/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Work Order: 0110200  
Project: CRF001/Crawford St.

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-3417	Batch ID: 02 HG S-10/2	Test Code: EPA 7471A	Units: mg/Kg	Analysis Date: 10/26/01	Prep Date: 10/25/01
Client ID:	0110200	Run ID: MERC_011026A		SeqNo: 94304	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.1			
Sample ID: MB-3418	Batch ID: 02 HG S-10/2	Test Code: EPA 7471A	Units: mg/Kg	Analysis Date: 10/26/01	Prep Date: 10/25/01
Client ID:	0110200	Run ID: MERC_011026B		SeqNo: 94336	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.1			
Sample ID: MB-3352	Batch ID: 3352	Test Code: EPA 6010B	Units: mg/Kg	Analysis Date: 10/26/01	Prep Date: 10/24/01
Client ID:	0110200	Run ID: ICP_011026B		SeqNo: 94176	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chromium	ND	1			
Copper	ND	1			
Lead	ND	1			
Nickel	ND	1			
Zinc	ND	1			
Sample ID: MB-3395	Batch ID: 3395	Test Code: EPA 8015	Units: mg/Kg	Analysis Date: 10/22/01	Prep Date: 10/22/01
Client ID:	0110200	Run ID: ATLAS_011022B		SeqNo: 93601	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Diesel	ND	50			
Gasoline	ND	20			
Oil	ND	100			
O-Terphenyl	97	0	100	0	97.0% 50 150 0

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-3396	Batch ID: 3396	Test Code: EPA 8015	Units: mg/Kg	Analysis Date: 10/22/01	Prep Date: 10/22/01						
Client ID:	0110200	Run ID: ATLAS_011022B	SeqNo: 93602								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	50									
Gasoline	ND	20									
Oil	ND	100									
O-Terphenyl	95	0	100	0	95.0%	50	150	0			

Sample ID: MB-3398	Batch ID: 3398	Test Code: EPA 8082A	Units: µg/Kg	Analysis Date: 10/22/01	Prep Date: 10/22/01						
Client ID:	0110200	Run ID: PCB_011022B	SeqNo: 93830								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	50									
Aroclor 1221	ND	50									
Aroclor 1232	ND	50									
Aroclor 1242	ND	50									
Aroclor 1248	ND	50									
Aroclor 1254	ND	50									
Aroclor 1260	ND	50									
Decachlorobiphenyl	226.5	0	250	0	90.6%	70	130	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

**QC SUMMARY REPORT**  
Method Blank

Sample ID: MB-3399		Batch ID: 3399		Test Code: EPA 8082A		Units: µg/Kg		Analysis Date: 10/22/01			Prep Date: 10/22/01	
Client ID:		0110200		Run ID: PCB_011022A		SeqNo: 93796						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aroclor 1016	ND	50										
Aroclor 1221	ND	50										
Aroclor 1232	ND	50										
Aroclor 1242	ND	50										
Aroclor 1248	ND	50										
Aroclor 1254	ND	50										
Aroclor 1260	ND	50										
Decachlorobiphenyl	186	0	250	0	74.4%	70	130	0				

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Bridgewater Group  
Work Order: 0110200  
Project: CRF001/Crawford St.

**QC SUMMARY REPORT**  
Method Blank

Sample ID: MB-3405	Batch ID: 3405	Test Code: 8270-SIM	Units: µg/Kg	Analysis Date: 10/23/01	Prep Date: 10/23/01						
Client ID:	0110200	Run ID: HEISENBURG_011023A	SeqNo: 93703								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	50									
Acenaphthylene	ND	50									
Anthracene	ND	50									
Benz(a)anthracene	ND	50									
Benzo(a)pyrene	ND	50									
Benzo(b)fluoranthene	ND	50									
Benzo(g,h,i)perylene	ND	50									
Benzo(k)fluoranthene	ND	50									
Chrysene	ND	50									
Dibenz(a,h)anthracene	ND	50									
Fluoranthene	ND	50									
Fluorene	ND	50									
Indeno(1,2,3-cd)pyrene	ND	50									
Naphthalene	ND	50									
Phenanthrene	ND	50									
Pyrene	ND	50									
2-Fluorobiphenyl	510	0	500	0	102.0%	30	115	0			
4-Terphenyl-d14	555	0	500	0	111.0%	18	137	0			
Nitrobenzene-d5	415	0	500	0	83.0%	23	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Bridgewater Group  
Work Order: 0110200  
Project: CRF001/Crawford St.

**QC SUMMARY REPORT**  
Method Blank

Sample ID: MB-3406	Batch ID: 3406	Test Code: 8270-SIM	Units: µg/Kg	Analysis Date: 10/23/01	Prep Date: 10/23/01						
Client ID:	0110200	Run ID: HEISENBURG_011023B	SeqNo: 94103								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	50									
Acenaphthylene	ND	50									
Anthracene	ND	50									
Benz(a)anthracene	ND	50									
Benzo(a)pyrene	ND	50									
Benzo(b)fluoranthene	ND	50									
Benzo(g,h,i)perylene	ND	50									
Benzo(k)fluoranthene	ND	50									
Chrysene	ND	50									
Dibenz(a,h)anthracene	ND	50									
Fluoranthene	ND	50									
Fluorene	ND	50									
Indeno(1,2,3-cd)pyrene	ND	50									
Naphthalene	ND	50									
Phenanthrene	ND	50									
Pyrene	ND	50									
2-Fluorobiphenyl	465	0	500	0	93.0%	30	115	0			
4-Terphenyl-d14	585	0	500	0	117.0%	18	137	0			
Nitrobenzene-d5	400	0	500	0	80.0%	23	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: Bridgewater Group  
Work Order: 0110200  
Project: CRF001/Crawford St.

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-3407		Batch ID: 3407		Test Code: EPA 6010B		Units: mg/Kg		Analysis Date: 10/25/01		Prep Date: 10/24/01		
Client ID:		0110200		Run ID: ICP_011025A				SeqNo: 93881				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		ND	10									
Arsenic		ND	1									
Beryllium		ND	1									
Cadmium		ND	1									
Copper		ND	1									
Iron		ND	2									
Lead		ND	1									
Nickel		ND	1									
Selenium		ND	1									
Silver		ND	1									
Thallium		ND	1									
Zinc		ND	1									

Sample ID: MB-3411	Batch ID: 3411	Test Code: EPA 6010B	Units: mg/Kg	Analysis Date: 10/26/01	Prep Date: 10/24/01						
Client ID:	0110200	Run ID: ICP_011026C		SeqNo: 94264							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1									
Barium	ND	1									
Cadmium	ND	1									
Chromium	ND	1									
Copper	ND	1									
Lead	ND	1									
Nickel	ND	1									
Selenium	ND	1									
Silver	ND	1									
Zinc	ND	2									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

**QC SUMMARY REPORT**  
Method Blank

Sample ID: MB-3414		Batch ID: 3414		Test Code: EPA 8015		Units: mg/Kg		Analysis Date: 10/26/01			Prep Date: 10/25/01	
Client ID:		0110200		Run ID: BUTTERCUP_011026B		SeqNo: 94234						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel	ND	20										
Oil	ND	50										
O-Terphenyl	39.5	0	50	0	79.0%	50	150	0				

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0110200-02B DUP		Batch ID: 02 HG S-10/2	Test Code: EPA 7471A		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID: B-2		0110200	Run ID: MERC_011026A			SeqNo: 94310					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.3	0.1	0	0	0.0%	0	0	0.21	35.3%	20	R,Q
Sample ID: 0110200-22B DUP		Batch ID: 02 HG S-10/2	Test Code: EPA 7471A		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID: P-19		0110200	Run ID: MERC_011026B			SeqNo: 94342					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.16	0.1	0	0	0.0%	0	0	0	200.0%	20	R,Q
Sample ID: 0110200-02B DUP		Batch ID: 3352	Test Code: EPA 6010B		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/24/01		
Client ID: B-2		0110200	Run ID: ICP_011026B			SeqNo: 94182					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	48.6	1	0	0	0.0%	0	0	75.9	43.9%	20	R,Q
Copper	604	1	0	0	0.0%	0	0	558	7.9%	20	
Lead	462	1	0	0	0.0%	0	0	1890	121.4%	20	R,Q
Nickel	370	1	0	0	0.0%	0	0	129	96.6%	20	R,Q
Zinc	256	1	0	0	0.0%	0	0	262	2.3%	20	
Sample ID: 0110200-04A DUP		Batch ID: 3395	Test Code: EPA 8015		Units: mg/Kg-dry	Analysis Date: 10/22/01			Prep Date: 10/22/01		
Client ID: B-4		0110200	Run ID: ATLAS_011022B			SeqNo: 93613					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	56.2	0	0	0.0%	0	0	0	0.0%	20	
Gasoline	ND	22.5	0	0	0.0%	0	0	0	0.0%	20	
Oil	ND	112	0	0	0.0%	0	0	0	0.0%	20	
O-Terphenyl	129.2	0	112	0	115.0%	50	150	0	0.0%	0	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0110200-14A DUP		Batch ID: 3395		Test Code: EPA 8015		Units: mg/Kg-dry		Analysis Date: 10/22/01			Prep Date: 10/22/01	
Client ID: P-7		0110200		Run ID: ATLAS_011022B				SeqNo: 93624				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel	ND	50.5	0	0	0.0%	0	0	0	0.0%	20		
Gasoline	ND	20.2	0	0	0.0%	0	0	0	0.0%	20		
Oil	ND	101	0	0	0.0%	0	0	0	0.0%	20		
O-Terphenyl	100	0	101	0	99.0%	50	150	0	0.0%	0		

Sample ID: 0110200-24A DUP		Batch ID: 3396		Test Code: EPA 8015		Units: mg/Kg-dry		Analysis Date: 10/22/01		Prep Date: 10/22/01		
Client ID: P-7D		0110200		Run ID: ATLAS_011022B				SeqNo: 93635				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel	ND	51	0	0	0.0%	0	0	0	0.0%	20		
Gasoline	ND	20.4	0	0	0.0%	0	0	0	0.0%	20		
Oil	ND	102	0	0	0.0%	0	0	0	0.0%	20		
O-Terphenyl	96.94	0	102	0	95.0%	50	150	0	0.0%	0		

Sample ID: 0110200-23B DUP		Batch ID: 3398		Test Code: EPA 8082A		Units: µg/Kg		Analysis Date: 10/22/01			Prep Date: 10/22/01	
Client ID: P-20		0110200		Run ID: PCB_011022B		SeqNo: 93850						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aroclor 1016	ND	50	0	0	0.0%	0	0	0	0.0%	20		
Aroclor 1221	ND	50	0	0	0.0%	0	0	0	0.0%	20		
Aroclor 1232	ND	50	0	0	0.0%	0	0	0	0.0%	20		
Aroclor 1242	ND	50	0	0	0.0%	0	0	0	0.0%	20		
Aroclor 1248	ND	50	0	0	0.0%	0	0	0	0.0%	20		
Aroclor 1254	ND	50	0	0	0.0%	0	0	0	0.0%	20		
Aroclor 1260	ND	50	0	0	0.0%	0	0	0	0.0%	20		
Decachlorobiphenyl	206.5	0	250	0	82.6%	70	130	0	0.0%	20		

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Bridgewater Group  
 Work Order: 0110200  
 Project: CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0110200-09B DUP Batch ID: 3405 Test Code: 8270-SIM Units: µg/Kg Analysis Date: 10/23/01 Prep Date: 10/23/01  
 Client ID: P-2 0110200 Run ID: HEISENBURG\_011023A SeqNo: 94495

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Acenaphthylene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Anthracene	100	50	0	0	0.0%	0	0	130	26.1%	30	
Benz(a)anthracene	250	50	0	0	0.0%	0	0	220	12.8%	30	
Benzo(a)pyrene	175	50	0	0	0.0%	0	0	230	27.2%	30	
Benzo(b)fluoranthene	150	50	0	0	0.0%	0	0	180	18.2%	30	
Benzo(g,h,i)perylene	220	50	0	0	0.0%	0	0	180	20.0%	30	
Benzo(k)fluoranthene	170	50	0	0	0.0%	0	0	215	23.4%	30	
Chrysene	365	50	0	0	0.0%	0	0	285	24.6%	30	
Dibenz(a,h)anthracene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Fluoranthene	995	50	0	0	0.0%	0	0	605	48.8%	30	R
Fluorene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Indeno(1,2,3-cd)pyrene	135	50	0	0	0.0%	0	0	130	3.8%	30	
Naphthalene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Phenanthrene	485	50	0	0	0.0%	0	0	460	5.3%	30	
Pyrene	1320	50	0	0	0.0%	0	0	515	87.7%	30	R
2-Fluorobiphenyl	670	0	500	0	134.0%	30	115	0	0.0%	30	S, MI
4-Terphenyl-d14	640	0	500	0	128.0%	18	137	0	0.0%	30	
Nitrobenzene-d5	475	0	500	0	95.0%	23	120	0	0.0%	30	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0110200-17B DUP		Batch ID: 3405		Test Code: 8270-SIM		Units: µg/Kg		Analysis Date: 10/30/01		Prep Date: 10/23/01	
Client ID: P-10		0110200		Run ID: HEISENBURG_011023A		SeqNo: 94496					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Acenaphthylene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Anthracene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Benz(a)anthracene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Benzo(a)pyrene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Benzo(b)fluoranthene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Benzo(g,h,i)perylene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Benzo(k)fluoranthene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Chrysene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Dibenz(a,h)anthracene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Fluoranthene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Fluorene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Indeno(1,2,3-cd)pyrene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Naphthalene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Phenanthrene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Pyrene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
2-Fluorobiphenyl	515	0	500	0	103.0%	30	115	0	0.0%	30	
4-Terphenyl-d14	570	0	500	0	114.0%	18	137	0	0.0%	30	
Nitrobenzene-d5	465	0	500	0	93.0%	23	120	0	0.0%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0110200-19B DUP		Batch ID: 3406		Test Code: 8270-SIM		Units: µg/Kg		Analysis Date: 10/30/01		Prep Date: 10/23/01	
Client ID: P-15		0110200		Run ID: HEISENBURG_011023B		SeqNo: 94566					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Acenaphthylene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Anthracene	195	50	0	0	0.0%	0	0	200	2.5%	30	
Benz(a)anthracene	90	50	0	0	0.0%	0	0	125	32.6%	30	R, Q
Benzo(a)pyrene	110	50	0	0	0.0%	0	0	125	12.8%	30	
Benzo(b)fluoranthene	70	50	0	0	0.0%	0	0	90	25.0%	30	
Benzo(g,h,i)perylene	ND	50	0	0	0.0%	0	0	70	0.0%	30	
Benzo(k)fluoranthene	95	50	0	0	0.0%	0	0	125	27.3%	30	
Chrysene	120	50	0	0	0.0%	0	0	160	28.6%	30	
Dibenz(a,h)anthracene	ND	50	0	0	0.0%	0	0	0	0.0%	30	
Fluoranthene	220	50	0	0	0.0%	0	0	335	41.4%	30	R, Q
Fluorene	70	50	0	0	0.0%	0	0	60	15.4%	30	
Indeno(1,2,3-cd)pyrene	ND	50	0	0	0.0%	0	0	65	0.0%	30	
Naphthalene	70	50	0	0	0.0%	0	0	60	15.4%	30	
Phenanthrene	280	50	0	0	0.0%	0	0	310	10.2%	30	
Pyrene	225	50	0	0	0.0%	0	0	330	37.8%	30	R, Q
2-Fluorobiphenyl	470	0	500	0	94.0%	30	115	0	0.0%	30	
4-Terphenyl-d14	505	0	500	0	101.0%	18	137	0	0.0%	30	
Nitrobenzene-d5	475	0	500	0	95.0%	23	120	0	0.0%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0110192-01A DUP		Batch ID: 3407	Test Code: EPA 6010B		Units: mg/Kg	Analysis Date: 10/25/01			Prep Date: 10/24/01		
Client ID:		0110200	Run ID: ICP_011025A			SeqNo: 93887					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	16200	10	0	0	0.0%	0	0	14900	8.4%	20	
Arsenic	3.34	1	0	0	0.0%	0	0	3.3	1.2%	20	
Beryllium	ND	1	0	0	0.0%	0	0	0	0.0%	20	
Cadmium	ND	1	0	0	0.0%	0	0	0	0.0%	20	
Copper	22.2	1	0	0	0.0%	0	0	21.9	1.4%	20	
Iron	19700	2	0	0	0.0%	0	0	19800	0.5%	20	
Lead	237	1	0	0	0.0%	0	0	196	18.9%	20	
Nickel	14.7	1	0	0	0.0%	0	0	15.8	7.2%	20	
Selenium	ND	1	0	0	0.0%	0	0	0	0.0%	20	
Silver	ND	1	0	0	0.0%	0	0	0	0.0%	20	
Thallium	ND	1	0	0	0.0%	0	0	0	0.0%	20	
Zinc	75.8	1	0	0	0.0%	0	0	76.7	1.2%	20	

Sample ID: 0110200-22B DUP		Batch ID: 3411	Test Code: EPA 6010B		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/24/01		
Client ID: P-19		0110200	Run ID: ICP_011026C			SeqNo: 94270					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	21.8	1	0	0	0.0%	0	0	22.9	4.9%	20	
Barium	285	1	0	0	0.0%	0	0	285	0.0%	20	
Cadmium	1.17	1	0	0	0.0%	0	0	1.31	11.3%	20	
Chromium	193	1	0	0	0.0%	0	0	179	7.5%	20	
Copper	1940	2	0	0	0.0%	0	0	1890	2.6%	20	
Lead	460	1	0	0	0.0%	0	0	656	35.1%	20	R,Q
Nickel	66.1	1	0	0	0.0%	0	0	140	71.7%	20	R,Q
Selenium	ND	1	0	0	0.0%	0	0	0	0.0%	20	
Silver	ND	1	0	0	0.0%	0	0	1.03	0.0%	20	
Zinc	370	1	0	0	0.0%	0	0	312	17.0%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0110200-22A DUP		Batch ID: 3414	Test Code: EPA 8015		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID: P-19		0110200	Run ID: BUTTERCUP_011026B			SeqNo: 94255					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	20	0	0	0.0%	0	0	30.1	0.0%	20	T
Oil	69.5	50	0	0	0.0%	0	0	68.56	1.4%	20	
O-Terphenyl	42.5	0	51.5	0	85.0%	50	150	0	0.0%	20	

Sample ID: 0110214-01A DUP		Batch ID: 3414	Test Code: EPA 8015		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID:		0110200	Run ID: BUTTERCUP_011026B			SeqNo: 94248					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	20	0	0	0.0%	0	0	0	0.0%	20	
Oil	206.7	50	0	0	0.0%	0	0	179.3	14.2%	20	
O-Terphenyl	54.67	0	66.7	0	109.3%	50	150	0	0.0%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0110200-01B MS		Batch ID: 02 HG S-10/2	Test Code: EPA 7471A		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID: B-1		0110200	Run ID: MERC_011026A			SeqNo: 94307					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.06	0.1	1	0	106.0%	75	125	0			
Sample ID: 0110200-01B MSD		Batch ID: 02 HG S-10/2	Test Code: EPA 7471A		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID: B-1		0110200	Run ID: MERC_011026A			SeqNo: 94308					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.04	0.1	1	0	104.0%	75	125	1.06	1.9%	20	
Sample ID: 0110200-21B MS		Batch ID: 02 HG S-10/2	Test Code: EPA 7471A		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID: P-18		0110200	Run ID: MERC_011026B			SeqNo: 94339					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.04	0.1	1	0	104.0%	75	125	0			
Sample ID: 0110200-21B MSD		Batch ID: 02 HG S-10/2	Test Code: EPA 7471A		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID: P-18		0110200	Run ID: MERC_011026B			SeqNo: 94340					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.08	0.1	1	0	108.0%	75	125	1.04	3.8%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0110200-01B MS		Batch ID: 3352	Test Code: EPA 6010B		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/24/01		
Client ID: B-1		0110200	Run ID: ICP_011026B			SeqNo: 94179					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	98.2	1	50	50.8	94.8%	75	125	0			
Copper	394	1	50	396	-4.0%	75	125	0			S,MI
Lead	64.1	1	50	46.5	35.2%	75	125	0			S,MI
Nickel	68.9	1	50	28.1	81.6%	75	125	0			
Zinc	158	1	50	152	12.0%	75	125	0			S,MI

Sample ID: 0110200-01B MSD		Batch ID: 3352	Test Code: EPA 6010B		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/24/01		
Client ID: B-1		0110200	Run ID: ICP_011026B			SeqNo: 94180					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	93.1	1	50	50.8	84.6%	75	125	98.2	5.3%	20	
Copper	391	1	50	396	-10.0%	75	125	394	0.8%	20	S,MI
Lead	70.9	1	50	46.5	48.8%	75	125	64.1	10.1%	20	S,MI
Nickel	64.1	1	50	28.1	72.0%	75	125	68.9	7.2%	20	S,MI
Zinc	153	1	50	152	2.0%	75	125	158	3.2%	20	S,MI

Sample ID: 0110200-24B MS		Batch ID: 3398	Test Code: EPA 8082A		Units: µg/Kg	Analysis Date: 10/22/01			Prep Date: 10/22/01		
Client ID: P-7D		0110200	Run ID: PCB_011022B			SeqNo: 93852					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	216	50	250	0	86.4%	70	130	0			
Aroclor 1260	338.5	50	250	0	135.4%	70	130	0			S
Decachlorobiphenyl	253	0	250	0	101.2%	70	130	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0110192-02A MS		Batch ID: 3407		Test Code: EPA 6010B		Units: mg/Kg		Analysis Date: 10/25/01		Prep Date: 10/24/01	
Client ID:		0110200		Run ID: ICP_011025A				SeqNo: 93884			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	16700	10	500	14400	460.0%	75	125	0			S,M
Arsenic	40.3	1	50	2.42	75.8%	75	125	0			
Beryllium	47.3	1	50	0	94.6%	75	125	0			
Cadmium	45.7	1	50	0	91.4%	75	125	0			
Copper	68.7	1	50	19	99.4%	75	125	0			S,M
Iron	21500	4	500	19800	340.0%	75	125	0			
Lead	51.5	1	50	5.59	91.8%	75	125	0			
Nickel	58.9	1	50	12.7	92.4%	75	125	0			
Selenium	44.3	1	50	0	88.6%	75	125	0			S
Silver	44.5	1	50	0	89.0%	75	125	0			
Thallium	36	1	50	0	72.0%	75	125	0			
Zinc	87.4	1	50	40.5	93.8%	75	125	0			

Sample ID: 0110200-21B MS		Batch ID: 3411		Test Code: EPA 6010B		Units: mg/Kg		Analysis Date: 10/26/01		Prep Date: 10/24/01	
Client ID: P-18		0110200		Run ID: ICP_011026C		SeqNo: 94267					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	53.6	1	50	25.8	55.6%	75	125	0			S,M
Barium	247	1	50	222	50.0%	75	125	0			S,M
Cadmium	37.2	1	50	0	74.4%	75	125	0			S,M
Chromium	140	1	50	101	78.0%	75	125	0			
Copper	1030	2	50	1200	-340.0%	75	125	0			S,M
Lead	384	1	50	3130	-5492.0%	75	125	0			S,M
Nickel	174	1	50	285	-222.0%	75	125	0			S,M
Selenium	35.5	1	50	0	71.0%	75	125	0			S,M
Silver	44.9	1	50	1.12	87.6%	75	125	0			
Zinc	371	1	50	314	114.0%	75	125	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: 0110200-21B MSD		Batch ID: 3411	Test Code: EPA 6010B		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/24/01		
Client ID: P-18		0110200	Run ID: ICP_011026C			SeqNo: 94268					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	55.5	1	50	25.8	59.4%	75	125	53.6	3.5%	20	S,MI
Barium	272	1	50	222	100.0%	75	125	247	9.6%	20	
Cadmium	36.9	1	50	0	73.8%	75	125	37.2	0.8%	20	S,MI
Chromium	167	1	50	101	132.0%	75	125	140	17.6%	20	S,MI
Copper	1190	2	50	1200	-20.0%	75	125	1030	14.4%	20	S,M
Lead	414	1	50	3130	-5432.0%	75	125	384	7.5%	20	S,M
Nickel	853	1	50	285	1136.0%	75	125	174	132.2%	20	SR,M
Selenium	35.7	1	50	0	71.4%	75	125	35.5	0.6%	20	S,MI
Silver	45	1	50	1.12	87.8%	75	125	44.9	0.2%	20	
Zinc	338	1	50	314	48.0%	75	125	371	9.3%	20	S,M

Sample ID: 0110200-07A MS		Batch ID: 3414	Test Code: EPA 8015		Units: mg/Kg	Analysis Date: 10/26/01			Prep Date: 10/25/01		
Client ID: B-7		0110200	Run ID: BUTTERCUP_011026B			SeqNo: 94250					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	80	20	58.8	53.35	53.3%	52	118	0			
O-Terphenyl	39	0	58.8	0	78.0%	50	150	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS-3417	Batch ID: 02 HG S-10/2	Test Code: EPA 7471A	Units: mg/Kg	Analysis Date: 10/26/01				Prep Date: 10/25/01			
Client ID:	0110200	Run ID: MERC_011026A		SeqNo: 94305							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.48	0.1	0.5	0	96.0%	80	120	0			

Sample ID: LCS-3418	Batch ID: 02 HG S-10/2	Test Code: EPA 7471A	Units: mg/Kg	Analysis Date: 10/26/01				Prep Date: 10/25/01			
Client ID:	0110200	Run ID: MERC_011026B		SeqNo: 94337							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.5	0.1	0.5	0	100.0%	80	120	0			

Sample ID: LCS-3352	Batch ID: 3352	Test Code: EPA 6010B	Units: mg/Kg	Analysis Date: 10/26/01				Prep Date: 10/24/01			
Client ID:	0110200	Run ID: ICP_011026B		SeqNo: 94177							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	44.4	1	50	0	88.8%	80	120	0			
Copper	46.2	1	50	0	92.4%	80	120	0			
Lead	45.1	1	50	0	90.2%	80	120	0			
Nickel	44.7	1	50	0	89.4%	80	120	0			
Zinc	44.1	1	50	0	88.2%	80	120	0			

Sample ID: LCS-3398	Batch ID: 3398	Test Code: EPA 8082A	Units: µg/Kg	Analysis Date: 10/22/01				Prep Date: 10/22/01			
Client ID:	0110200	Run ID: PCB_011022B		SeqNo: 93832							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	243.5	50	250	0	97.4%	70	130	0			
Aroclor 1260	272.5	50	250	0	109.0%	70	130	0			
Decachlorobiphenyl	290.5	0	250	0	116.2%	70	130	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: <b>LCSD-3398</b>	Batch ID: <b>3398</b>	Test Code: <b>EPA 8082A</b>	Units: <b>µg/Kg</b>	Analysis Date: <b>10/22/01</b>	Prep Date: <b>10/22/01</b>						
Client ID:	<b>0110200</b>	Run ID: <b>PCB_011022B</b>		SeqNo: <b>93833</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	232.5	50	250	0	93.0%	70	130	243.5	4.6%	20	
Aroclor 1260	265	50	250	0	106.0%	70	130	272.5	2.8%	20	
Decachlorobiphenyl	279	0	250	0	111.6%	70	130	0	0.0%	20	

Sample ID: <b>LCS-3399</b>	Batch ID: <b>3399</b>	Test Code: <b>EPA 8082A</b>	Units: <b>µg/Kg</b>	Analysis Date: <b>10/22/01</b>	Prep Date: <b>10/22/01</b>						
Client ID:	<b>0110200</b>	Run ID: <b>PCB_011022A</b>		SeqNo: <b>93798</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	231.5	50	250	0	92.6%	70	130	0			
Aroclor 1260	215.5	50	250	0	86.2%	70	130	0			
Decachlorobiphenyl	194	0	250	0	77.6%	70	130	0			

Sample ID: <b>LCSD-3399</b>	Batch ID: <b>3399</b>	Test Code: <b>EPA 8082A</b>	Units: <b>µg/Kg</b>	Analysis Date: <b>10/22/01</b>	Prep Date: <b>10/22/01</b>						
Client ID:	<b>0110200</b>	Run ID: <b>PCB_011022A</b>		SeqNo: <b>93799</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	216	50	250	0	86.4%	70	130	231.5	6.9%	20	
Aroclor 1260	209.5	50	250	0	83.8%	70	130	215.5	2.8%	20	
Decachlorobiphenyl	197.5	0	250	0	79.0%	70	130	0	0.0%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

**QC SUMMARY REPORT**  
Laboratory Control Spike - generic

Sample ID: LCS-3405		Batch ID: 3405		Test Code: 8270-SIM		Units: µg/Kg		Analysis Date: 10/23/01		Prep Date: 10/23/01	
Client ID:		0110200		Run ID: HEISENBURG_011023A		SeqNo: 93705					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	470	50	500	0	94.0%	47	145	0			
Acenaphthylene	410	50	500	0	82.0%	33	145	0			
Anthracene	445	50	500	0	89.0%	27	133	0			
Benz(a)anthracene	400	50	500	0	80.0%	33	143	0			
Benzo(a)pyrene	445	50	500	0	89.0%	17	163	0			
Benzo(b)fluoranthene	455	50	500	0	91.0%	24	159	0			
Benzo(g,h,i)perylene	380	50	500	0	76.0%	1	219	0			
Benzo(k)fluoranthene	490	50	500	0	98.0%	11	162	0			
Chrysene	445	50	500	0	89.0%	17	168	0			
Dibenz(a,h)anthracene	390	50	500	0	78.0%	1	227	0			
Fluoranthene	465	50	500	0	93.0%	26	137	0			
Fluorene	465	50	500	0	93.0%	59	121	0			
Indeno(1,2,3-cd)pyrene	350	50	500	0	70.0%	1	171	0			
Naphthalene	490	50	500	0	98.0%	21	133	0			
Phenanthrene	430	50	500	0	86.0%	54	120	0			
Pyrene	480	50	500	0	96.0%	52	115	0			
2-Fluorobiphenyl	565	0	500	0	113.0%	30	115	0			
4-Terphenyl-d14	580	0	500	0	116.0%	18	137	0			
Nitrobenzene-d5	495	0	500	0	99.0%	23	120	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: LCSD-3405	Batch ID: 3405	Test Code: 8270-SIM	Units: µg/Kg	Analysis Date: 10/23/01	Prep Date: 10/23/01						
Client ID: 0110200	Run ID: HEISENBURG_011023A	SeqNo: 93706									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	480	50	500	0	96.0%	47	145	470	2.1%	30	
Acenaphthylene	440	50	500	0	88.0%	33	145	410	7.1%	30	
Anthracene	440	50	500	0	88.0%	27	133	445	1.1%	30	
Benz(a)anthracene	415	50	500	0	83.0%	33	143	400	3.7%	30	
Benzo(a)pyrene	380	50	500	0	76.0%	17	163	445	15.8%	30	
Benzo(b)fluoranthene	470	50	500	0	94.0%	24	159	455	3.2%	30	
Benzo(g,h,i)perylene	425	50	500	0	85.0%	1	219	380	11.2%	30	
Benzo(k)fluoranthene	515	50	500	0	103.0%	11	162	490	5.0%	30	
Chrysene	460	50	500	0	92.0%	17	168	445	3.3%	30	
Dibenz(a,h)anthracene	365	50	500	0	73.0%	1	227	390	6.6%	30	
Fluoranthene	485	50	500	0	97.0%	26	137	465	4.2%	30	
Fluorene	465	50	500	0	93.0%	59	121	465	0.0%	30	
Indeno(1,2,3-cd)pyrene	390	50	500	0	78.0%	1	171	350	10.8%	30	
Naphthalene	475	50	500	0	95.0%	21	133	490	3.1%	30	
Phenanthrene	440	50	500	0	88.0%	54	120	430	2.3%	30	
Pyrene	495	50	500	0	99.0%	52	115	480	3.1%	30	
2-Fluorobiphenyl	520	0	500	0	104.0%	30	115	0	0.0%	30	
4-Terphenyl-d14	535	0	500	0	107.0%	18	137	0	0.0%	30	
Nitrobenzene-d5	450	0	500	0	90.0%	23	120	0	0.0%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS-3406	Batch ID: 3406	Test Code: 8270-SIM	Units: µg/Kg	Analysis Date: 10/23/01				Prep Date: 10/23/01			
Client ID:	0110200	Run ID:	HEISENBURG_011023B		SeqNo:	94105					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	500	50	500	0	100.0%	47	145	0			
Acenaphthylene	480	50	500	0	96.0%	33	145	0			
Anthracene	440	50	500	0	88.0%	27	133	0			
Benz(a)anthracene	410	50	500	0	82.0%	33	143	0			
Benzo(a)pyrene	395	50	500	0	79.0%	17	163	0			
Benzo(b)fluoranthene	370	50	500	0	74.0%	24	159	0			
Benzo(g,h,i)perylene	470	50	500	0	94.0%	1	219	0			
Benzo(k)fluoranthene	615	50	500	0	123.0%	11	162	0			
Chrysene	495	50	500	0	99.0%	17	168	0			
Dibenz(a,h)anthracene	435	50	500	0	87.0%	1	227	0			
Fluoranthene	490	50	500	0	98.0%	26	137	0			
Fluorene	490	50	500	0	98.0%	59	121	0			
Indeno(1,2,3-cd)pyrene	405	50	500	0	81.0%	1	171	0			
Naphthalene	510	50	500	0	102.0%	21	133	0			
Phenanthrene	365	50	500	0	73.0%	54	120	0			
Pyrene	575	50	500	0	115.0%	52	115	0			
2-Fluorobiphenyl	550	0	500	0	110.0%	30	115	0			
4-Terphenyl-d14	600	0	500	0	120.0%	18	137	0			
Nitrobenzene-d5	480	0	500	0	96.0%	23	120	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: LCSD-3406	Batch ID: 3406	Test Code: 8270-SIM	Units: µg/Kg	Analysis Date: 10/23/01				Prep Date: 10/23/01			
Client ID:	0110200	Run ID:	HEISENBURG_011023B		SeqNo:		94106				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	460	50	500	0	92.0%	47	145	500	8.3%	30	
Acenaphthylene	445	50	500	0	89.0%	33	145	480	7.6%	30	
Anthracene	450	50	500	0	90.0%	27	133	440	2.2%	30	
Benz(a)anthracene	370	50	500	0	74.0%	33	143	410	10.3%	30	
Benzo(a)pyrene	385	50	500	0	77.0%	17	163	395	2.6%	30	
Benzo(b)fluoranthene	350	50	500	0	70.0%	24	159	370	5.6%	30	
Benzo(g,h,i)perylene	545	50	500	0	109.0%	1	219	470	14.8%	30	
Benzo(k)fluoranthene	600	50	500	0	120.0%	11	162	615	2.5%	30	
Chrysene	465	50	500	0	93.0%	17	168	495	6.3%	30	
Dibenz(a,h)anthracene	435	50	500	0	87.0%	1	227	435	0.0%	30	
Fluoranthene	465	50	500	0	93.0%	26	137	490	5.2%	30	
Fluorene	435	50	500	0	87.0%	59	121	490	11.9%	30	
Indeno(1,2,3-cd)pyrene	425	50	500	0	85.0%	1	171	405	4.8%	30	
Naphthalene	470	50	500	0	94.0%	21	133	510	8.2%	30	
Phenanthrene	350	50	500	0	70.0%	54	120	365	4.2%	30	
Pyrene	560	50	500	0	112.0%	52	115	585	4.4%	30	
2-Fluorobiphenyl	505	0	500	0	101.0%	30	115	0	0.0%	30	
4-Terphenyl-d14	590	0	500	0	118.0%	18	137	0	0.0%	30	
Nitrobenzene-d5	440	0	500	0	88.0%	23	120	0	0.0%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

**QC SUMMARY REPORT**  
Laboratory Control Spike - generic

Sample ID: LCS-3414	Batch ID: 3414	Test Code: EPA 8015	Units: mg/Kg	Analysis Date: 10/26/01	Prep Date: 10/25/01						
Client ID:	0110200	Run ID: BUTTERCUP_011026B	SeqNo: 94235								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	38.7	20	50	0	77.4%	52	118	0			
O-Terphenyl	40.5	0	50	0	81.0%	50	150	0			

Sample ID: LCSD-3414	Batch ID: 3414	Test Code: EPA 8015	Units: mg/Kg		Analysis Date: 10/26/01			Prep Date: 10/25/01			
Client ID:	0110200	Run ID:	BUTTERCUP_011026B			SeqNo:		94236			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	41.7	20	50	0	83.4%	52	118	38.7	7.5%	20	
O-Terphenyl	48.5	0	50	0	97.0%	50	150	0	0.0%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 31-Oct-01

CLIENT: Bridgewater Group  
Work Order: 0110200  
Project: CRF001/Crawford St.

## QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV	Batch ID: 3398	Test Code: EPA 8082A	Units: µg/L	Analysis Date: 10/22/01				Prep Date:			
Client ID:	0110200	Run ID: PCB_011022B		SeqNo: 93831							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	.998	0.1	1	0	99.8%	80	120	0			
Aroclor 1260	.999	0.1	1	0	99.9%	80	120	0			
Decachlorobiphenyl	1.086	0	1	0	108.6%	70	130	0			

Sample ID: CCV	Batch ID: 3399	Test Code: EPA 8082A	Units: µg/L	Analysis Date: 10/22/01				Prep Date:			
Client ID:	0110200	Run ID: PCB_011022A		SeqNo: 93797							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	.975	0.1	1	0	97.5%	80	120	0			
Aroclor 1260	.884	0.1	1	0	88.4%	80	120	0			
Decachlorobiphenyl	.909	0	1	0	90.9%	70	130	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV	Batch ID: 3405	Test Code: 8270-SIM	Units: µg/L	Analysis Date: 10/23/01				Prep Date:			
Client ID:	0110200	Run ID: HEISENBURG_011023A	SeqNo: 93704								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1	0.1	1	0	100.0%	80	120	0			
Acenaphthylene	.91	0.1	1	0	91.0%	80	120	0			
Anthracene	.96	0.1	1	0	96.0%	80	120	0			
Benz(a)anthracene	.98	0.1	1	0	98.0%	80	120	0			
Benzo(a)pyrene	1.01	0.1	1	0	101.0%	80	120	0			
Benzo(b)fluoranthene	1.03	0.1	1	0	103.0%	80	120	0			
Benzo(g,h,i)perylene	.94	0.1	1	0	94.0%	80	120	0			
Benzo(k)fluoranthene	1.07	0.1	1	0	107.0%	80	120	0			
Chrysene	1.02	0.1	1	0	102.0%	80	120	0			
Dibenz(a,h)anthracene	.91	0.1	1	0	91.0%	80	120	0			
Fluoranthene	.98	0.1	1	0	98.0%	80	120	0			
Fluorene	.98	0.1	1	0	98.0%	80	120	0			
Indeno(1,2,3-cd)pyrene	.95	0.1	1	0	95.0%	80	120	0			
Naphthalene	1.01	0.1	1	0	101.0%	80	120	0			
Phenanthrene	.94	0.1	1	0	94.0%	80	120	0			
Pyrene	1.01	0.1	1	0	101.0%	80	120	0			
2-Fluorobiphenyl	1.06	0	1	0	106.0%	30	115	0			
4-Terphenyl-d14	1.2	0	1	0	120.0%	18	137	0			
Nitrobenzene-d5	.99	0	1	0	99.0%	23	120	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV	Batch ID: 3406	Test Code: 8270-SIM	Units: µg/Kg	Analysis Date: 10/23/01	Prep Date:						
Client ID:	0110200	Run ID: HEISENBURG_011023B		SeqNo: 94104							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1	0.05	1	0	100.0%	80	120	0			
Acenaphthylene	.95	0.05	1	0	95.0%	80	120	0			
Anthracene	.99	0.05	1	0	99.0%	80	120	0			
Benz(a)anthracene	.87	0.05	1	0	87.0%	80	120	0			
Benzo(a)pyrene	1.06	0.05	1	0	106.0%	80	120	0			
Benzo(b)fluoranthene	.8	0.05	1	0	80.0%	80	120	0			
Benzo(g,h,i)perylene	1.11	0.05	1	0	111.0%	80	120	0			
Benzo(k)fluoranthene	1.18	0.05	1	0	118.0%	80	120	0			
Chrysene	.99	0.05	1	0	99.0%	80	120	0			
Dibenz(a,h)anthracene	.88	0.05	1	0	88.0%	80	120	0			
Fluoranthene	.96	0.05	1	0	96.0%	80	120	0			
Fluorene	.98	0.05	1	0	98.0%	80	120	0			
Indeno(1,2,3-cd)pyrene	.94	0.05	1	0	94.0%	80	120	0			
Naphthalene	1.02	0.05	1	0	102.0%	80	120	0			
Phenanthrene	.83	0.05	1	0	83.0%	80	120	0			
Pyrene	1.15	0.05	1	0	115.0%	80	120	0			
2-Fluorobiphenyl	1.08	0	1	0	108.0%	30	115	0			
4-Terphenyl-d14	1.65	0	1	0	165.0%	18	137	0			S
Nitrobenzene-d5	.9	0	1	0	90.0%	23	120	0			

Sample ID: CCV	Batch ID: 3414	Test Code: EPA 8015	Units: mg/L	Analysis Date: 10/26/01	Prep Date:						
Client ID:	0110200	Run ID: BUTTERCUP_011026B		SeqNo: 94230							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	379	20	400	0	94.8%	85	115	0			
Oil	376	50	400	0	94.0%	85	115	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

**QC SUMMARY REPORT**  
Continuing Calibration Verification Standard

Sample ID: CCV	Batch ID: 3414	Test Code: EPA 8015	Units: mg/L	Analysis Date: 10/26/01			Prep Date:				
Client ID:	0110200	Run ID: BUTTERCUP_011026B	SeqNo: 94231								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	382	20	400	0	95.5%	85	115	0			
Oil	396	50	400	0	99.0%	85	115	0			

Sample ID: CCV	Batch ID: 3414	Test Code: EPA 8015	Units: mg/L	Analysis Date: 10/26/01			Prep Date:				
Client ID:	0110200	Run ID: BUTTERCUP_011026B	SeqNo: 94232								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	392	20	400	0	98.0%	85	115	0			
Oil	418	50	400	0	104.5%	85	115	0			

Sample ID: CCV	Batch ID: 3414	Test Code: EPA 8015	Units: mg/L	Analysis Date: 10/26/01			Prep Date:				
Client ID:	0110200	Run ID: BUTTERCUP_011026B	SeqNo: 94233								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	376	20	400	0	94.0%	85	115	0			
Oil	387	50	400	0	96.8%	85	115	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



# Environmental Services Laboratory

Date: 31-Oct-01

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

### Initial Calibration Verification Standard

Sample ID: ICV	Batch ID: 02 HG S-10/2	Test Code: EPA 7471A	Units: mg/Kg	Analysis Date: 10/26/01				Prep Date: 10/25/01			
Client ID:	0110200	Run ID: MERC_011026A	SeqNo: 94303								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.99	0.1	1	0	99.0%	90	110	0			

Sample ID: ICV	Batch ID: 02 HG S-10/2	Test Code: EPA 7471A	Units: mg/Kg	Analysis Date: 10/26/01				Prep Date: 10/25/01			
Client ID:	0110200	Run ID: MERC_011026B	SeqNo: 94335								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.02	0.1	1	0	102.0%	90	110	0			

Sample ID: ICVHI	Batch ID: 3352	Test Code: EPA 6010B	Units: mg/L	Analysis Date: 10/26/01				Prep Date: 10/24/01			
Client ID:	0110200	Run ID: ICP_011026B	SeqNo: 94175								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	9.97	0.005	10	0	99.7%	90	110	0			

Sample ID: ICVLOW	Batch ID: 3352	Test Code: EPA 6010B	Units: mg/L	Analysis Date: 10/26/01				Prep Date: 10/24/01			
Client ID:	0110200	Run ID: ICP_011026B	SeqNo: 94174								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	.484	0.005	0.5	0	96.8%	90	110	0			
Copper	.495	0.005	0.5	0	99.0%	90	110	0			
Lead	.505	0.005	0.5	0	101.0%	90	110	0			
Nickel	.499	0.005	0.5	0	99.8%	90	110	0			
Zinc	.49	0.005	0.5	0	98.0%	90	110	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit.  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Minerals ICV for ICP

Sample ID: ICVHI	Batch ID: 3411	Test Code: EPA 6010B	Units: mg/L	Analysis Date: 10/26/01				Prep Date: 10/24/01			
Client ID:	0110200	Run ID: ICP_011026C	SeqNo: 94263								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	9.83	0.005	10	0	98.3%	90	110	0			

Sample ID: ICVLOW	Batch ID: 3411	Test Code: EPA 6010B	Units: mg/L	Analysis Date: 10/26/01				Prep Date: 10/24/01			
Client ID:	0110200	Run ID: ICP_011026C			SeqNo: 94262						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	.489	0.005	0.5	0	97.8%	90	110	0			
Barium	.495	0.005	0.5	0	99.0%	90	110	0			
Cadmium	.499	0.002	0.5	0	99.8%	90	110	0			
Chromium	.485	0.005	0.5	0	97.0%	90	110	0			
Copper	.498	0.005	0.5	0	99.6%	90	110	0			
Lead	.503	0.005	0.5	0	100.6%	90	110	0			
Nickel	.497	0.005	0.5	0	99.4%	90	110	0			
Selenium	.507	0.005	0.5	0	101.4%	90	110	0			
Silver	.499	0.005	0.5	0	99.8%	90	110	0			
Zinc	.485	0.005	0.5	0	97.0%	90	110	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV	Batch ID: 3405	Test Code: 8270-SIM	Units: µg/L	Analysis Date: 10/23/01				Prep Date:			
Client ID:	0110200	Run ID: HEISENBURG_011023A	SeqNo: 93704								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1	0.1	1	0	100.0%	80	120	0			
Acenaphthylene	.91	0.1	1	0	91.0%	80	120	0			
Anthracene	.96	0.1	1	0	96.0%	80	120	0			
Benz(a)anthracene	.98	0.1	1	0	98.0%	80	120	0			
Benzo(a)pyrene	1.01	0.1	1	0	101.0%	80	120	0			
Benzo(b)fluoranthene	1.03	0.1	1	0	103.0%	80	120	0			
Benzo(g,h,i)perylene	.94	0.1	1	0	94.0%	80	120	0			
Benzo(k)fluoranthene	1.07	0.1	1	0	107.0%	80	120	0			
Chrysene	1.02	0.1	1	0	102.0%	80	120	0			
Dibenz(a,h)anthracene	.91	0.1	1	0	91.0%	80	120	0			
Fluoranthene	.98	0.1	1	0	98.0%	80	120	0			
Fluorene	.98	0.1	1	0	98.0%	80	120	0			
Indeno(1,2,3-cd)pyrene	.95	0.1	1	0	95.0%	80	120	0			
Naphthalene	1.01	0.1	1	0	101.0%	80	120	0			
Phenanthrene	.94	0.1	1	0	94.0%	80	120	0			
Pyrene	1.01	0.1	1	0	101.0%	80	120	0			
2-Fluorobiphenyl	1.06	0	1	0	106.0%	30	115	0			
4-Terphenyl-d14	1.2	0	1	0	120.0%	18	137	0			
Nitrobenzene-d5	.99	0	1	0	99.0%	23	120	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

## QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV	Batch ID: 3406	Test Code: 8270-SIM	Units: µg/Kg	Analysis Date: 10/23/01	Prep Date:						
Client ID:	0110200	Run ID: HEISENBURG_011023B	SeqNo: 94104								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1	0.05	1	0	100.0%	80	120	0			
Acenaphthylene	.95	0.05	1	0	95.0%	80	120	0			
Anthracene	.99	0.05	1	0	99.0%	80	120	0			
Benz(a)anthracene	.87	0.05	1	0	87.0%	80	120	0			
Benzo(a)pyrene	1.06	0.05	1	0	106.0%	80	120	0			
Benzo(b)fluoranthene	.8	0.05	1	0	80.0%	80	120	0			
Benzo(g,h,i)perylene	1.11	0.05	1	0	111.0%	80	120	0			
Benzo(k)fluoranthene	1.18	0.05	1	0	118.0%	80	120	0			
Chrysene	.99	0.05	1	0	99.0%	80	120	0			
Dibenz(a,h)anthracene	.88	0.05	1	0	88.0%	80	120	0			
Fluoranthene	.96	0.05	1	0	96.0%	80	120	0			
Fluorene	.98	0.05	1	0	98.0%	80	120	0			
Indeno(1,2,3-cd)pyrene	.94	0.05	1	0	94.0%	80	120	0			
Naphthalene	1.02	0.05	1	0	102.0%	80	120	0			
Phenanthrene	.83	0.05	1	0	83.0%	80	120	0			
Pyrene	1.15	0.05	1	0	115.0%	80	120	0			
2-Fluorobiphenyl	1.08	0	1	0	108.0%	30	115	0			
4-Terphenyl-d14	1.65	0	1	0	165.0%	18	137	0			S
Nitrobenzene-d5	.9	0	1	0	90.0%	23	120	0			

Sample ID: CCV	Batch ID: 3414	Test Code: EPA 8015	Units: mg/L	Analysis Date: 10/26/01				Prep Date:			
Client ID:	0110200	Run ID:	BUTTERCUP_011026B		SeqNo:		94230				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	379	20	400	0	94.8%	85	115	0			
Oil	376	50	400	0	94.0%	85	115	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Bridgewater Group  
**Work Order:** 0110200  
**Project:** CRF001/Crawford St.

**QC SUMMARY REPORT**  
Initial Calibration Verification Standard

Sample ID: <b>ICVLOW</b>	Batch ID: <b>3411</b>	Test Code: <b>EPA 6010B</b>	Units: <b>mg/L</b>	Analysis Date: <b>10/26/01</b>				Prep Date: <b>10/24/01</b>			
Client ID:	<b>0110200</b>	Run ID:	<b>ICP_011026C</b>		SeqNo:	<b>94262</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	.489	0.005	0.5	0	97.8%	90	110	0			
Barium	.495	0.005	0.5	0	99.0%	90	110	0			
Cadmium	.499	0.002	0.5	0	99.8%	90	110	0			
Chromium	.485	0.005	0.5	0	97.0%	90	110	0			
Copper	.498	0.005	0.5	0	99.6%	90	110	0			
Lead	.503	0.005	0.5	0	100.6%	90	110	0			
Nickel	.497	0.005	0.5	0	99.4%	90	110	0			
Selenium	.507	0.005	0.5	0	101.4%	90	110	0			
Silver	.499	0.005	0.5	0	99.8%	90	110	0			
Zinc	.485	0.005	0.5	0	97.0%	90	110	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## ENVIRONMENTAL SERVICES LABORATORY -- GLOSSARY OF FLAGS

<u>Qualifier</u>	<u>Description</u>
AA	This sample was analyzed after the holding time had expired.
AB	The hydrocarbon pattern in this sample is not typical of gasoline.
AC	The hydrocarbon pattern in this sample is not typical of diesel.
AD	The hydrocarbon pattern in this sample is not typical of oil.
AE	The hydrocarbon pattern in this sample extends into the gasoline range.
AF	The hydrocarbon pattern in this sample extends into the diesel range.
AG	The hydrocarbon pattern in this sample extends into the oil range.
A	This analysis was performed on a VOA sample containing headspace.
B	Analyte detected in the Method Blank above the reporting level.
C	The Relative Percent Difference (RPD) for the primary result and confirmation result was greater than 40%. The higher result was reported.
D	The sample was supplied in an inappropriate container, according to method criteria.
E	This value is above the quantitation limit. It is considered an estimate.
H	The Matrix Spike/Matrix Spike Duplicate (MS/MSD) result was outside control limits. The Laboratory Control Standard/Duplicate (LCS/LCSD) result was in control validating the batch.
J	The result is above the Method Detection Limit (MDL) and below the Reporting Level (RL). It is considered an estimate.
M	The MS/MSD recoveries are not calculable due to a high amount of analyte in sample.
MI	This indicates a high level of matrix interference affecting the spike or surrogate recovery.
N	See case narrative.
O	Detection Limits are elevated due to sample dilution. See case narrative.
Q	Further inspection of the sample confirms a non-homogenous sample matrix affecting RPD result.
R	The RPD result is outside method control limits. See other qualifiers or case narrative.
S	The spike recovery is outside method control limits. See other qualifiers or case narrative.
T	The RPD between the sample result and duplicate result was greater than 20%. The original result was less than three times the reporting level, therefore the RPD is not applicable.
X	Unable to quantitate surrogate recovery due to sample dilution.

# Environmental Services Laboratory, Inc

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 670-8520 • FAX (503) 670-9243

## CHAIN OF CUSTODY

pg 1

Company: <u>Bridgewater Group</u>				Project Manager: <u>Ross Rieke</u>				LABORATORY # <u>0110200</u>									
Address: <u>4500 SW Kruse Way, Suite 110, Lake Oswego, OR 97035</u>																	
Phone: <u>(503) 675-5252</u> Fax: <u>675-1960</u>				ANALYSIS REQUEST													
<div style="text-align: center;">ext. 2</div> <b>SAMPLE DISPOSAL INSTRUCTIONS</b>				PETROLEUM HYDROCARBONS		ORGANICS			INORGANICS		TCLP		# OF CONTAINERS				
				NWTPH-HCID	NWTPH-GX only	NWTPH-DX	8020M - BETX only	8270 SIMS PAHs	Halogenated VOCs/GCMS	Aromatic VOCs/GCMS	8260 GCMS Volatiles	8270 GCMS Semivolatiles		8081 GC Pesticides/PCBs	8081m PCBs only	PCRA Metals (8)	Priority Pollutant Metals (13)
SAMPLE ID	DATE	TIME	MATRIX	LAB ID													
B-1	10/29/01		Soil	01	X	X	X	X				X					
B-2				02													
B-3				03													
B-4				04													
B-5				05													
B-6				06													
B-7				07													
P-1				08													
P-2				09													
P-3				10													
P-4				11													
P-5				12													
P-6				13													
P-7				14													
P-8				15													

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
PROJECT NUMBER: <u>CRF001</u>		TOTAL NUMBER OF CONTAINERS		SIGNATURE: <u>[Signature]</u> Time: <u>2:11</u>		SIGNATURE: <u>[Signature]</u> Time: <u>3:55</u>		SIGNATURE: _____ Time: _____	
PROJECT NAME: <u>Crawford St</u>		COC SEALS INTACT? Y/N/NA		Printed Name: <u>Ross Rieke</u> Date: <u>10/31/01</u>		Printed Name: <u>Keith Hunter</u> Date: <u>10/31/01</u>		Printed Name: _____ Date: _____	
PURCHASE ORDER NUMBER:		RECEIVED INTACT? Y/N		Company: _____		Company: <u>ESL</u>		Company: _____	
ONGOING PROJECT? YES <input type="checkbox"/> NO <input type="checkbox"/>		RECEIVED COLD? Y/N		RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: (LAB) 3.	
PRIOR AUTHORIZATION REQUIRED FOR RUSH PROJECTS				Signature: <u>[Signature]</u> Time: _____		Signature: <u>[Signature]</u> Time: <u>1555</u>		Signature: _____ Time: _____	
TAT (NORMAL) 2 WKS (RUSH) <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HRS <input type="checkbox"/> 72 HRS <input checked="" type="checkbox"/> 1 WK				Printed Name: <u>D. Thamy</u> Date: _____		Printed Name: <u>Kim Davis</u> Date: <u>10/31/01</u>		Printed Name: _____ Date: _____	
GREATER THAN 24 HR NOTICE? YES <input type="checkbox"/> NO <input type="checkbox"/> (LAB USE ONLY)				Company: <u>ESL</u>		Company: <u>NCA</u>		ESL Inc.:	
SPECIAL INSTRUCTIONS: <u>Thoroughly mix/homogenize each sample before collecting aliquot</u>				Sampled by: _____ Received via: _____ DISTRIBUTION: White, Canary - ESL, Pink - Originator					







# *Environmental Services Laboratory, Inc.*

November 07, 2001 Upper Boones Ferry Road, Suite 270 • Portland, OR 97224 • (503) 670-8520

Mr. Ross Rieke  
Bridgewater Group  
4500 SW Kruse way  
Suite 110  
Lake Oswego, Oregon 97035  
TEL: (503) 675-5252  
FAX (503) 675-1960

RE:

Order No.: 0110211

Dear Mr. Ross Rieke,

Environmental Services Laboratory received 2 samples on 10/23/01 for the analyses presented in the following report.

The Samples were analyzed for the following tests:  
ICP Metals (EPA 6010B)

There were no analytical problems encountered, and all data met laboratory QC criteria, unless noted in a Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval of the Laboratory. The following checked data sections are included in this report, and numbered to indicate total pages within each report section.

☒ Base Sample Report    ☒ Method Blank Report    ☒ Sample Duplicate Report  
☒ Matrix Spike/Matrix Spike Duplicate Report    ☒ Laboratory Control Spike/Spike  
Duplicate Report    ☐ Continuing Calibration Verification Report    ☒ Initial Calibration  
Verification Report

If you have any questions regarding these test results, please feel free to call.

Sincerely,

*Leslie Rush*  
Leslie Rush  
Project Manager

*Keith Hunter*  
Technical Review

# Environmental Services Laboratory

Date: 07-Nov-01

CLIENT: Bridgewater Group  
Lab Order: 0110211  
Project:  
Lab ID: 0110211-01A

Client Sample ID: SP-2  
Tag Number:  
Collection Date: 10/22/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS		EPA 6010B				Analyst: mal
Chromium, TCLP	ND	0.0500		mg/L	1	10/26/01
Lead, TCLP	0.381	0.0500		mg/L	1	10/26/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 07-Nov-01

CLIENT: Bridgewater Group  
Lab Order: 0110211  
Project:  
Lab ID: 0110211-02A

Client Sample ID: SP-3  
Tag Number:  
Collection Date: 10/22/01  
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS		EPA 6010B				Analyst: mal
Chromium, TCLP	0.101	0.0500		mg/L	1	10/26/01
Lead, TCLP	3.14	0.0500		mg/L	1	10/26/01

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

# Environmental Services Laboratory

Date: 07-Nov-01

CLIENT: Bridgewater Group

Work Order: 0110211

Project:

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-3416	Batch ID: 3416	Test Code: EPA 6010B	Units: mg/L	Analysis Date: 10/26/01	Prep Date: 10/25/01						
Client ID:	0110211	Run ID: ICP_011026A	SeqNo: 94066								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.005									
Arsenic	ND	0.005									
Barium	ND	0.005									
Beryllium	ND	0.002									
Cadmium	ND	0.002									
Calcium	ND	0.05									
Chromium	ND	0.005									
Cobalt	ND	0.005									
Copper	ND	0.005									
Lead	ND	0.005									
Manganese	ND	0.005									
Nickel	ND	0.005									
Selenium	ND	0.005									
Silver	ND	0.005									
Thallium	ND	0.01									
Vanadium	ND	0.005									
Zinc	ND	0.005									

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 07-Nov-01

CLIENT: Bridgewater Group

Work Order: 0110211

Project:

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0110229-01A DUP		Batch ID: 3416		Test Code: EPA 6010B		Units: mg/L		Analysis Date: 10/26/01		Prep Date: 10/25/01	
Client ID: 0110211		Run ID: ICP_011026A		SeqNo: 94072							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Arsenic	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Barium	.0266	0.005	0	0	0.0%	0	0	0.0266	0.0%	20	
Beryllium	ND	0.002	0	0	0.0%	0	0	0	0.0%	20	
Cadmium	ND	0.002	0	0	0.0%	0	0	0	0.0%	20	
Calcium	2.3	0.05	0	0	0.0%	0	0	2.28	0.9%	20	
Chromium	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Cobalt	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Copper	.0496	0.005	0	0	0.0%	0	0	0.0489	1.4%	20	
Lead	.0321	0.005	0	0	0.0%	0	0	0.0311	3.2%	20	
Manganese	.0761	0.005	0	0	0.0%	0	0	0.0761	0.0%	20	
Nickel	.0052	0.005	0	0	0.0%	0	0	0.005	3.9%	20	
Selenium	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Silver	ND	0.005	0	0	0.0%	0	0	0	0.0%	20	
Thallium	ND	0.01	0	0	0.0%	0	0	0	0.0%	20	
Vanadium	.0117	0.005	0	0	0.0%	0	0	0.0108	8.0%	20	
Zinc	.185	0.005	0	0	0.0%	0	0	0.184	0.5%	20	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 07-Nov-01

CLIENT: Bridgewater Group

Work Order: 0110211

Project:

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0110198-01A MS		Batch ID: 3416		Test Code: EPA 6010B		Units: mg/L		Analysis Date: 10/26/01			Prep Date: 10/25/01	
Client ID:		0110211		Run ID: ICP_011026A		SeqNo: 94069						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony, Diss	.439	0.005	0.5	0	87.8%	75	125	0				
Arsenic, Diss	.492	0.005	0.5	0.0109	96.2%	75	125	0				
Barium, Diss	.647	0.005	0.5	0.168	95.8%	75	125	0				
Beryllium, Diss	.451	0.002	0.5	0	90.2%	70	130	0				
Cadmium, Diss	.432	0.002	0.5	0	86.4%	75	125	0				
Calcium, Diss	148	0.05	5	0.143	2957.1%	75	125	0			S,M	
Chromium, Diss	.436	0.005	0.5	0	87.2%	75	125	0				
Cobalt, Diss	.471	0.005	0.5	0	94.2%	75	125	0				
Copper, Diss	.488	0.005	0.5	0	97.6%	75	125	0				
Lead, Diss	.438	0.005	0.5	0	87.6%	75	125	0				
Manganese, Diss	7.65	0.005	0.5	7.18	94.0%	75	125	0				
Nickel, Diss	.425	0.005	0.5	0	85.0%	75	125	0				
Selenium, Diss	.454	0.005	0.5	0.0057	89.7%	75	125	0				
Silver, Diss	.493	0.005	0.5	0	98.6%	75	125	0				
Thallium, Diss	.403	0.01	0.5	0	80.6%	75	125	0				
Vanadium, Diss	.483	0.005	0.5	0	96.6%	75	125	0				
Zinc, Diss	.459	0.005	0.5	0.0302	85.8%	75	125	0				

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Bridgewater Group  
 Work Order: 0110211  
 Project:

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: 0110198-01A MSD		Batch ID: 3416		Test Code: EPA 6010B		Units: mg/L		Analysis Date: 10/26/01		Prep Date: 10/25/01	
Client ID: 0110211		Run ID: ICP_011026A				SeqNo: 94070					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony, Diss	.439	0.005	0.5	0	87.8%	75	125	0.439	0.0%	20	S,M
Arsenic, Diss	.493	0.005	0.5	0.0109	96.4%	75	125	0.492	0.2%	20	
Barium, Diss	.65	0.005	0.5	0.168	96.4%	75	125	0.647	0.5%	20	
Beryllium, Diss	.452	0.002	0.5	0	90.4%	70	130	0.451	0.2%	20	
Cadmium, Diss	.432	0.002	0.5	0	86.4%	75	125	0.432	0.0%	20	
Calcium, Diss	148	0.05	5	0.143	2957.1%	75	125	148	0.0%	20	
Chromium, Diss	.437	0.005	0.5	0	87.4%	75	125	0.436	0.2%	20	
Cobalt, Diss	.474	0.005	0.5	0	94.8%	75	125	0.471	0.6%	20	
Copper, Diss	.494	0.005	0.5	0	98.8%	75	125	0.488	1.2%	20	
Lead, Diss	.438	0.005	0.5	0	87.6%	75	125	0.438	0.0%	20	
Manganese, Diss	7.68	0.005	0.5	7.18	100.0%	75	125	7.65	0.4%	20	
Nickel, Diss	.426	0.005	0.5	0	85.2%	75	125	0.425	0.2%	20	
Selenium, Diss	.454	0.005	0.5	0.0057	89.7%	75	125	0.454	0.0%	20	
Silver, Diss	.495	0.005	0.5	0	99.0%	75	125	0.493	0.4%	20	
Thallium, Diss	.404	0.01	0.5	0	80.8%	75	125	0.403	0.2%	20	
Vanadium, Diss	.486	0.005	0.5	0	97.2%	75	125	0.483	0.6%	20	
Zinc, Diss	.463	0.005	0.5	0.0302	86.6%	75	125	0.459	0.9%	20	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 07-Nov-01

CLIENT: Bridgewater Group

Work Order: 0110211

Project:

## QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS-3416		Batch ID: 3416		Test Code: EPA 6010B		Units: mg/L		Analysis Date: 10/26/01			Prep Date: 10/25/01	
Client ID:		0110211		Run ID: ICP_011026A		SeqNo: 94067						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	.436	0.005	0.5	0	87.2%	80	120	0				
Arsenic	.479	0.005	0.5	0	95.8%	80	120	0				
Barium	.481	0.005	0.5	0	96.2%	80	120	0				
Beryllium	.456	0.002	0.5	0	91.2%	80	120	0				
Cadmium	.448	0.002	0.5	0	89.6%	80	120	0				
Calcium	4.88	0.05	5	0	97.6%	80	120	0				
Chromium	.45	0.005	0.5	0	90.0%	80	120	0				
Cobalt	.484	0.005	0.5	0	96.8%	80	120	0				
Copper	.487	0.005	0.5	0	97.4%	80	120	0				
Lead	.453	0.005	0.5	0	90.6%	80	120	0				
Manganese	.477	0.005	0.5	0	95.4%	80	120	0				
Nickel	.446	0.005	0.5	0	89.2%	80	120	0				
Selenium	.454	0.005	0.5	0	90.8%	80	120	0				
Silver	.483	0.005	0.5	0	96.6%	80	120	0				
Thallium	.421	0.01	0.5	0	84.2%	80	120	0				
Vanadium	.485	0.005	0.5	0	97.0%	80	120	0				
Zinc	.445	0.005	0.5	0	89.0%	80	120	0				

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



# Environmental Services Laboratory

Date: 07-Nov-01

CLIENT: Bridgewater Group

Work Order: 0110211

Project:

## QC SUMMARY REPORT

Minerals ICP for ICP

Sample ID: ICVHI	Batch ID: 3416	Test Code: EPA 6010B	Units: mg/L	Analysis Date: 10/26/01				Prep Date: 10/25/01			
Client ID:	0110211	Run ID: ICP_011026A	SeqNo: 94065								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	24.8	0.05	25	0	99.2%	90	110	0			
Lead	10.1	0.005	10	0	101.0%	90	110	0			

Sample ID: ICVLOW	Batch ID: 3416	Test Code: EPA 6010B	Units: mg/L		Analysis Date: 10/26/01				Prep Date: 10/25/01		
Client ID:	0110211	Run ID:	ICP_011026A		SeqNo:		94064				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	.494	0.005	0.5	0	98.8%	90	110	0			
Arsenic	.494	0.005	0.5	0	98.8%	90	110	0			
Barium	.5	0.005	0.5	0	100.0%	90	110	0			
Beryllium	.501	0.002	0.5	0	100.2%	90	110	0			
Cadmium	.498	0.002	0.5	0	99.6%	90	110	0			
Chromium	.492	0.005	0.5	0	98.4%	90	110	0			
Cobalt	.495	0.005	0.5	0	99.0%	90	110	0			
Copper	.494	0.005	0.5	0	98.8%	90	110	0			
Lead	.504	0.005	0.5	0	100.8%	90	110	0			
Manganese	.49	0.005	0.5	0	98.0%	90	110	0			
Nickel	.495	0.005	0.5	0	99.0%	90	110	0			
Selenium	.501	0.005	0.5	0	100.2%	90	110	0			
Silver	.497	0.005	0.5	0	99.4%	90	110	0			
Thallium	.499	0.01	0.5	0	99.8%	90	110	0			
Vanadium	.495	0.005	0.5	0	99.0%	90	110	0			
Zinc	.487	0.005	0.5	0	97.4%	90	110	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## ENVIRONMENTAL SERVICES LABORATORY – GLOSSARY OF FLAGS

<u>Qualifier</u>	<u>Description</u>
AA	This sample was analyzed after the holding time had expired.
AB	The hydrocarbon pattern in this sample is not typical of gasoline.
AC	The hydrocarbon pattern in this sample is not typical of diesel.
AD	The hydrocarbon pattern in this sample is not typical of oil.
AE	The hydrocarbon pattern in this sample extends into the gasoline range.
AF	The hydrocarbon pattern in this sample extends into the diesel range.
AG	The hydrocarbon pattern in this sample extends into the oil range.
A	This analysis was performed on a VOA sample containing headspace.
B	Analyte detected in the Method Blank above the reporting level.
C	The Relative Percent Difference (RPD) for the primary result and confirmation result was greater than 40%. The higher result was reported.
D	The sample was supplied in an inappropriate container, according to method criteria.
E	This value is above the quantitation limit. It is considered an estimate.
H	The Matrix Spike/Matrix Spike Duplicate (MS/MSD) result was outside control limits. The Laboratory Control Standard/Duplicate (LCS/LCSD) result was in control validating the batch.
J	The result is above the Method Detection Limit (MDL) and below the Reporting Level (RL). It is considered an estimate.
M	The MS/MSD recoveries are not calculable due to a high amount of analyte in sample.
MI	This indicates a high level of matrix interference affecting the spike or surrogate recovery.
N	See case narrative.
O	Detection Limits are elevated due to sample dilution. See case narrative.
Q	Further inspection of the sample confirms a non-homogenous sample matrix affecting RPD result.
R	The RPD result is outside method control limits. See other qualifiers or case narrative.
S	The spike recovery is outside method control limits. See other qualifiers or case narrative.
T	The RPD between the sample result and duplicate result was greater than 20%. The original result was less than three times the reporting level, therefore the RPD is not applicable.
X	Unable to quantitate surrogate recovery due to sample dilution.

## CHAIN OF CUSTODY

[illegible]

# *Environmental Services Laboratory, Inc.*



17400 SW Upper Boones Ferry Road, Suite 270 • Portland, OR 97224 • (503) 670-8520

November 29, 2001

Mr. Ross Rieke  
Bridgewater Group  
4500 SW Kruse way  
Suite 110  
Lake Oswego, Oregon 97035  
TEL: (503) 675-5252  
FAX (503) 675-1960

RE: Crawford Street (was 0110200)

Order No.: 0111190

Dear Mr. Ross Rieke,

Environmental Services Laboratory received 4 samples on 11/14/01 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

ICP Metals (EPA 6010B)

There were no analytical problems encountered, and all data met laboratory QC criteria, unless noted in a Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval of the Laboratory.

The following checked data sections are included in this report, and numbered to indicate total pages within each report section.

☒ Base Sample Report    ☒ Method Blank Report    ☒ Sample Duplicate Report  
☒ Matrix Spike/Matrix Spike Duplicate Report    ☒ Laboratory Control Spike/Spike  
Duplicate Report    ☐ Continuing Calibration Verification Report    ☒ Initial Calibration  
Verification Report

If you have any questions regarding these test results, please feel free to call.

Sincerely,

*Leslie Rush*  
Leslie Rush  
Project Manager

*Keith Hunter*  
Technical Review

## Environmental Services Laboratory

Date: 29-Nov-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0111190  
**Project:** Crawford Street (was 0110200)  
**Lab ID:** 0111190-01A

**Client Sample ID:** B-2  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Lead, TCLP	23.0	0.0500		mg/L	1	11/27/01

**Qualifiers:**

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- \* - Value exceeds Maximum Contaminant Level

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

## Environmental Services Laboratory

Date: 29-Nov-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0111190  
**Project:** Crawford Street (was 0110200)  
**Lab ID:** 0111190-02A

**Client Sample ID:** B-3  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Lead, TCLP	0.0593	0.0500		mg/L	1	11/27/01

**Qualifiers:**

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

# Environmental Services Laboratory

Date: 29-Nov-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0111190  
**Project:** Crawford Street (was 0110200)  
**Lab ID:** 0111190-03A

**Client Sample ID:** P-3  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS		EPA 6010B				Analyst: mal
Lead, TCLP	1.27	0.0500		mg/L	1	11/27/01

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

## Environmental Services Laboratory

Date: 29-Nov-01

**CLIENT:** Bridgewater Group  
**Lab Order:** 0111190  
**Project:** Crawford Street (was 0110200)  
**Lab ID:** 0111190-04A

**Client Sample ID:** P-18  
**Tag Number:**  
**Collection Date:** 10/20/01  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP METALS</b>		<b>EPA 6010B</b>				Analyst: mal
Lead, TCLP	3.90	0.0500		mg/L	1	11/27/01

**Qualifiers:**

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



# Environmental Services Laboratory

Date: 29-Nov-01

CLIENT: Bridgewater Group  
Work Order: 0111190  
Project: Crawford Street (was 0110200)

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-3554	Batch ID: 3554	Test Code: EPA 6010B	Units: mg/L	Analysis Date: 11/27/01				Prep Date: 11/27/01			
Client ID:	0111190	Run ID: ICP_011127C	SeqNo: 97937								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	0.005									
Iron	ND	0.01									
Lead	ND	0.005									
Manganese	ND	0.005									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 29-Nov-01

CLIENT: Bridgewater Group  
Work Order: 0111190  
Project: Crawford Street (was 0110200)

## QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0111190-02A DUP		Batch ID: 3554		Test Code: EPA 6010B		Units: mg/L		Analysis Date: 11/27/01			Prep Date: 11/27/01	
Client ID: B-3		0111190		Run ID: ICP_011127C		SeqNo: 97943						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chromium, TCLP	ND	0.05	0	0	0.0%	0	0	0	0.0%	20		
Iron	.116	0.01	0	0	0.0%	0	0	0.115	0.9%	20		
Lead, TCLP	.0526	0.05	0	0	0.0%	0	0	0.0593	12.0%	20		
Manganese	.613	0.005	0	0	0.0%	0	0	0.61	0.5%	20		

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 29-Nov-01

**CLIENT:** Bridgewater Group  
**Work Order:** 0111190  
**Project:** Crawford Street (was 0110200)

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0111190-01A MS		Batch ID: 3554		Test Code: EPA 6010B		Units: mg/L		Analysis Date: 11/27/01		Prep Date: 11/27/01	
Client ID: B-2		0111190		Run ID: ICP_011127C				SeqNo: 97940			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	.489	0.005	0.5	0	97.8%	75	125	0			
Iron	5.27	0.01	5	0.0915	103.6%	75	125	0			
Lead	23.8	0.005	0.5	0	4760.0%	75	125	0			S,M
Manganese	2.07	0.005	0.5	1.59	96.0%	75	125	0			

Sample ID: 0111190-01A MSD		Batch ID: 3554		Test Code: EPA 6010B		Units: mg/L		Analysis Date: 11/27/01		Prep Date: 11/27/01	
Client ID: B-2		0111190		Run ID: ICP_011127C				SeqNo: 97941			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	.487	0.005	0.5	0	97.4%	75	125	0.489	0.4%	20	
Iron	5.26	0.01	5	0.0915	103.4%	75	125	5.27	0.2%	20	
Lead	23.5	0.005	0.5	0	4700.0%	75	125	23.8	1.3%	20	S,M
Manganese	2.05	0.005	0.5	1.59	92.0%	75	125	2.07	1.0%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Environmental Services Laboratory

Date: 29-Nov-01

CLIENT: Bridgewater Group  
 Work Order: 0111190  
 Project: Crawford Street (was 0110200)

## QC SUMMARY REPORT

Minerals ICV for ICP

Sample ID: ICVHI		Batch ID: 3554	Test Code: EPA 6010B		Units: mg/L	Analysis Date: 11/27/01			Prep Date: 11/27/01		
Client ID:		0111190	Run ID: ICP_011127C			SeqNo: 97936					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	25.74	0.01	25	0	103.0%	90	110	0			
Lead	9.57	0.005	10	0	95.7%	90	110	0			
Sample ID: ICVLOW		Batch ID: 3554	Test Code: EPA 6010B		Units: mg/L	Analysis Date: 11/27/01			Prep Date: 11/27/01		
Client ID:		0111190	Run ID: ICP_011127C			SeqNo: 97935					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	.492	0.005	0.5	0	98.4%	90	110	0			
Iron	.465	0.01	0.5	0	93.0%	90	110	0			
Lead	.516	0.005	0.5	0	103.2%	90	110	0			
Manganese	.491	0.005	0.5	0	98.2%	90	110	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## ENVIRONMENTAL SERVICES LABORATORY -- GLOSSARY OF FLAGS

<u>Qualifier</u>	<u>Description</u>
AA	This sample was analyzed after the holding time had expired.
AB	The hydrocarbon pattern in this sample is not typical of gasoline.
AC	The hydrocarbon pattern in this sample is not typical of diesel.
AD	The hydrocarbon pattern in this sample is not typical of oil.
AE	The hydrocarbon pattern in this sample extends into the gasoline range.
AF	The hydrocarbon pattern in this sample extends into the diesel range.
AG	The hydrocarbon pattern in this sample extends into the oil range.
A	This analysis was performed on a VOA sample containing headspace.
B	Analyte detected in the Method Blank above the reporting level.
C	The Relative Percent Difference (RPD) for the primary result and confirmation result was greater than 40%. The higher result was reported.
D	The sample was supplied in an inappropriate container, according to method criteria.
E	This value is above the quantitation limit. It is considered an estimate.
H	The Matrix Spike/Matrix Spike Duplicate (MS/MSD) result was outside control limits. The Laboratory Control Standard/Duplicate (LCS/LCSD) result was in control validating the batch.
J	The result is above the Method Detection Limit (MDL) and below the Reporting Level (RL). It is considered an estimate.
M	The MS/MSD recoveries are not calculable due to a high amount of analyte in sample.
MI	This indicates a high level of matrix interference affecting the spike or surrogate recovery.
N	See case narrative.
O	Detection Limits are elevated due to sample dilution. See case narrative.
Q	Further inspection of the sample confirms a non-homogenous sample matrix affecting RPD result.
R	The RPD result is outside method control limits. See other qualifiers or case narrative.
S	The spike recovery is outside method control limits. See other qualifiers or case narrative.
T	The RPD between the sample result and duplicate result was greater than 20%. The original result was less than three times the reporting level, therefore the RPD is not applicable.
X	Unable to quantitate surrogate recovery due to sample dilution.

# Environmental Services Laboratory, Inc

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 670-8520 • FAX (503) 670-9243

## CHAIN OF CUSTODY

pg 1

Company: Bridgewater Group Project Manager: Ross Rieke LABORATORY # 0111190

Address: 4500 SW Kruse Way, Suite 110, Lake Oswego, OR 97035

Phone: (503) 675-5252 Fax: 675-1960

ext. 2

SAMPLE DISPOSAL INSTRUCTIONS					ANALYSIS REQUEST															# OF CONTAINERS				
SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PETROLEUM HYDROCARBONS					ORGANICS					INORGANICS						TCLP			
					NWTPH-HCID	NWTPH-GX	NWTPH-DX	8020M - BETX only	8270 SIMS PAHs	Halogenated VOCs/GCMS	Aromatic VOCs/GCMS	8260 GCMS Volatiles	8270 GCMS Semivolatiles	8081 GC Pesticides/PCBs	8081m PCBs only	RCRA Metals (6)	Priority Pollutant Metals (13)	Metals: Hg, Zn, Cd, Cu, Pb	TCLP Metals (6)	TCLP Volatiles 8260 ZH-EXT	TCLP Semivolatiles 8270	TCLP Pb if Pb > 100 mg/kg		
B-1	10/24/01		Soil	01	X	X	X		X						X			X					X	
B-2				02																				
B-3				03																				
B-4				04																				
B-5				05																				
B-6				06																				
B-7				07																				
P-1				08																				
P-2				09																				
P-3				10																				
P-4				11																				
P-5				12																				
P-6				13																				
P-7				14																				
P-8				15																				

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
PROJECT NUMBER: <u>CRF001</u>	TOTAL NUMBER OF CONTAINERS	SIGNATURE: <u>[Signature]</u>	Time: <u>2:11</u>	SIGNATURE:	Time:	SIGNATURE:	Time:		
PROJECT NAME: <u>Crawford St</u>	COC SEALS INTACT? Y / N / NA	Printed Name: <u>Ross Rieke</u>	Date: <u>10/24/01</u>	Printed Name:	Date:	Printed Name:	Date:		
PURCHASE ORDER NUMBER:	RECEIVED INTACT? Y / N	Company:		Company:		Company:			
ONGOING PROJECT? YES <input type="checkbox"/> NO <input type="checkbox"/>	RECEIVED COLD? Y / N	RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: (LAB) 3.			
PRIOR AUTHORIZATION REQUIRED FOR RUSH PROJECTS		Signature: <u>[Signature]</u>	Time:	Signature:	Time:	Signature:	Time:		
TAT (NORMAL) 2 WKS (RUSH) <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HRS <input type="checkbox"/> 72 HRS <input checked="" type="checkbox"/> 1 WK	GREATER THAN 24 HR NOTICE? YES <input type="checkbox"/> NO <input type="checkbox"/> (LAB USE ONLY)	Printed Name: <u>D. Thamy</u>	Date:	Printed Name:	Date:	Printed Name:	Date:		
SPECIAL INSTRUCTIONS:		Company: <u>ESL</u>		Company:		ESL Inc.:			
Thoroughly mix/homogenize each sample before collecting aliquot									
Sampled by:	Received via:	DISTRIBUTION: White, Canary - ESL, Pink - Originator							

# Environmental Services Laboratory, Inc

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 670-8520 • FAX (503) 670-9243

## CHAIN OF CUSTODY

pg 2

Company: <u>Bridgewater Group</u>					Project Manager: <u>Ross Rieke</u>					LABORATORY # <u>0116200</u>														
Address:																								
Phone:					Fax:					ANALYSIS REQUEST														
SAMPLE DISPOSAL INSTRUCTIONS					<div style="display: flex; justify-content: space-between;"> <div> <b>PETROLEUM HYDROCARBONS</b>              NWTPH-HCID              NWTPH-GX only if              NWTPH-DX (HCD detected)              8020M - BETX only              8270 SDMS PAHs              Halogenated VOCs/GC/MS              Aromatic VOCs/GC/MS              8260 GC/MS Volatiles              8270 GC/MS Semivolatiles              8081 GC Pesticides/PCBs              8081m PCBs only              RCRA Metals (8)              Priority Pollutant Metals (13)              Metals: <u>Hg, Pb, Cu</u>              TCLP Metals (6)              TCLP Volatiles 8260 ZH-EXT              TCLP Semivolatiles 8270              TCLP Pb if Pb &gt; 100           </div> <div> <b>ORGANICS</b>              8260 GC/MS Volatiles              8270 GC/MS Semivolatiles              8081 GC Pesticides/PCBs              8081m PCBs only              RCRA Metals (8)              Priority Pollutant Metals (13)              Metals: <u>Hg, Pb, Cu</u>              TCLP Metals (6)              TCLP Volatiles 8260 ZH-EXT              TCLP Semivolatiles 8270              TCLP Pb if Pb &gt; 100           </div> <div> <b>INORGANICS</b>              8081 GC Pesticides/PCBs              8081m PCBs only              RCRA Metals (8)              Priority Pollutant Metals (13)              Metals: <u>Hg, Pb, Cu</u>              TCLP Metals (6)              TCLP Volatiles 8260 ZH-EXT              TCLP Semivolatiles 8270              TCLP Pb if Pb &gt; 100           </div> <div> <b>TCLP</b>              TCLP Volatiles 8260 ZH-EXT              TCLP Semivolatiles 8270              TCLP Pb if Pb &gt; 100           </div> </div>																			
SAMPLE ID	DATE	TIME	MATRIX	LAB ID	NWTPH-HCID	NWTPH-GX	NWTPH-DX	8020M - BETX only	8270 SDMS PAHs	Halogenated VOCs/GC/MS	Aromatic VOCs/GC/MS	8260 GC/MS Volatiles	8270 GC/MS Semivolatiles	8081 GC Pesticides/PCBs	8081m PCBs only	RCRA Metals (8)	Priority Pollutant Metals (13)	Metals: <u>Hg, Pb, Cu</u>	TCLP Metals (6)	TCLP Volatiles 8260 ZH-EXT	TCLP Semivolatiles 8270	TCLP Pb if Pb > 100	# OF CONTAINERS	
P-9	10/20/01		Soil	16	X	X	X		X						X			X						
P-10				17																				
P-11				18																				
P-12				19																				
P-17				20																				
P-18				21																				
P-19				22																				
P-20				23																				
<del>P-7D</del>				24																				
B-3D				25																				
SP-1	10/20/01		Soil	26																				

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
PROJECT NUMBER: <u>CR 001</u>		TOTAL NUMBER OF CONTAINERS		SIGNATURE: <u>[Signature]</u> Time <u>2:11</u>		SIGNATURE: _____ Time _____		SIGNATURE: _____ Time _____	
PROJECT NAME:		COC SEALS INTACT? Y/N/NA		Printed Name: <u>Ross Rieke</u> Date <u>10/21/01</u>		Printed Name: _____ Date _____		Printed Name: _____ Date _____	
PURCHASE ORDER NUMBER:		RECEIVED INTACT? Y/N		Company: _____		Company: _____		Company: _____	
ONGOING PROJECT? YES <input type="checkbox"/> NO <input type="checkbox"/>		RECEIVED COLD? Y/N		RECEIVED BY: 1. Signature: <u>[Signature]</u> Time <u>14:11</u>		RECEIVED BY: 2. Signature: _____ Time _____		RECEIVED BY: (LAB) 3. Signature: _____ Time _____	
PRIOR AUTHORIZATION REQUIRED FOR RUSH PROJECTS				Printed Name: <u>D. Miller</u> Date <u>10/21/01</u>		Printed Name: _____ Date _____		Printed Name: _____ Date _____	
TAT (NORMAL) 2 WKS (RUSH) <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HRS <input type="checkbox"/> 72 HRS <input checked="" type="checkbox"/> 1 WK				Company: <u>ESL</u>		Company: _____		Company: _____	
GREATER THAN 24 HR. NOTICE? YES <input type="checkbox"/> NO <input type="checkbox"/> (LAB USE ONLY)									
SPECIAL INSTRUCTIONS: <u>Thoroughly mix/homogenize each sample before collecting aliquot</u>									
Sampled by:		Received via:							
DISTRIBUTION: White, Canary - ESL, Pink - Originator									